

Decision Document

**Solid Waste Management Units I-15
Building 101-42 Catchment Pits
Hawthorne Army Depot
Hawthorne, Nevada**



January 2000



Hawthorne Army
Depot



Decision Document SWMU I-15 RECEIVED

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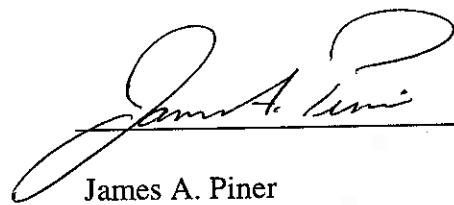
MAR 03 2000

ENVIRONMENTAL PROTECTION

The selected remedy is protective of human health and the environment. It has been shown that a complete pathway to human health and the environment does not exist, and there is no potential for an exposure pathway to be completed in the future.

U. S. Army

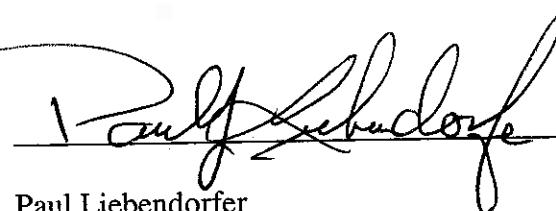
29 FEB 2000



James A. Piner
Lieutenant Colonel, U.S. Army

State of Nevada

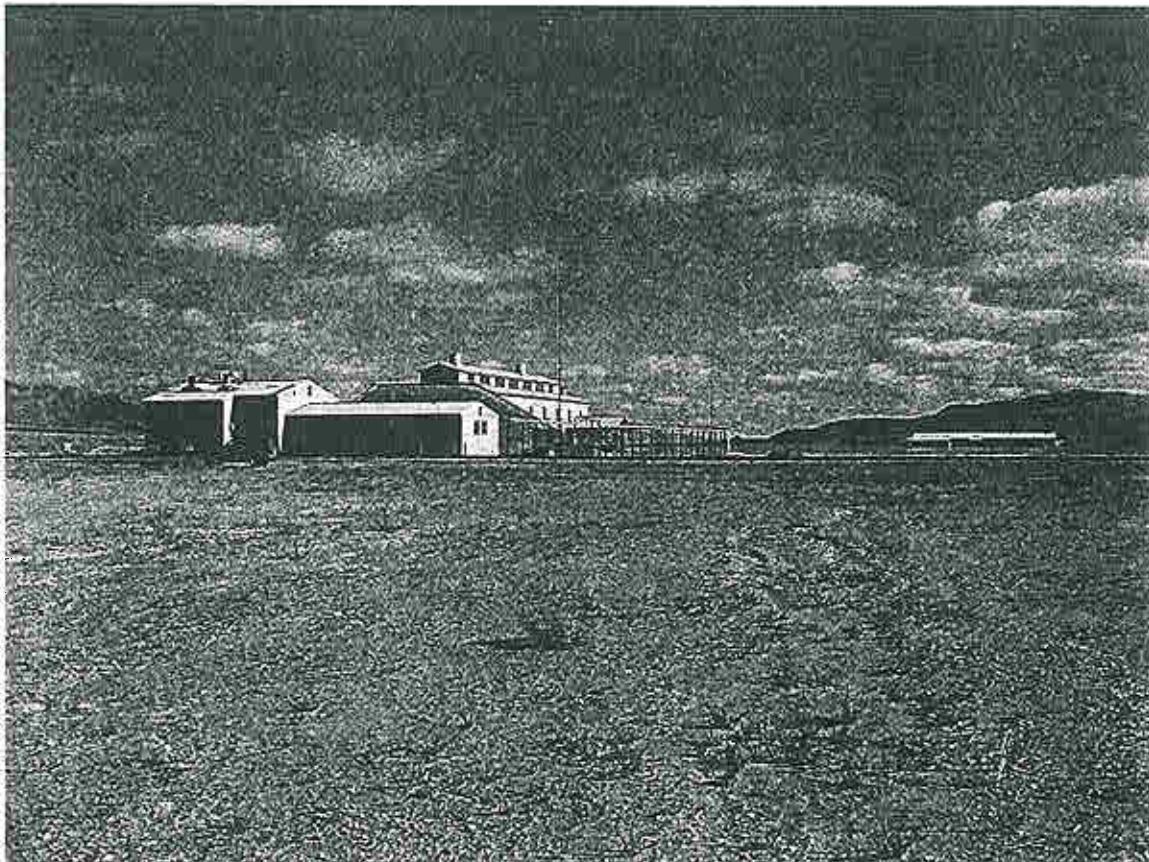
4 August 2000



Paul Liebendorfer
Chief, Bureau of Federal Facilities

Decision Document

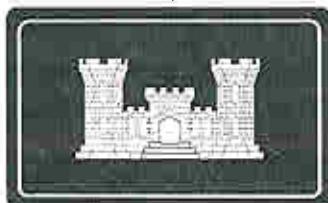
**Solid Waste Management Units I-15
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Hawthorne Army Depot
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January 2000



Hawthorne Army
Depot



Decision Document
SWMU I-15, Building 101-42 Catchment Pits
Hawthorne Army Depot
Hawthorne, Nevada

1.0 Introduction:

This decision document describes the rationale for the proposed closure of SWMU I-15, Building 101-42 Catchment pits, at the Hawthorne Army Depot (HWAD), Hawthorne, Nevada. This document was prepared by the U.S. Army Corps of Engineers, Sacramento District, HWAD and the Nevada Department of Environmental Protection (NDEP).

Tetra Tech, Inc. (Tt), was tasked by the US Army Corps of Engineers, Sacramento District (USACE), to perform remedial investigations and ground water monitoring at HWAD. These tasks were conducted from 1993 through 1997, primarily at solid waste management units (SWMUs) designated by the Army and the Nevada Division of Environmental Protection (NDEP). The NDEP is the lead regulatory agency for environmental issues at HWAD. The purpose of these studies was to determine the extent and degree of environmental impacts, if any, associated with activities performed at each SWMU. The primary goal was to assess the environmental impacts, report the findings, present conclusions, and recommend any remediation, if necessary.

With guidance from the NDEP, basewide proposed closure goals (PCGs) for soil were established as acceptable levels so that SWMU closure could be recommended and to assist in directing the investigative efforts toward those SWMUs where the target analytes were of greatest concern (Appendix A). These PCGs were used as action levels throughout this investigation and are used for comparison with the detected analytes in this report.

2.0 Site History

SWMU I15 is in HWAD's central magazine area, on the southeast side of the 101 Production Area (Figure 1-1). SWMU I15 has two inactive unlined catchment pits. The upper catchment pit (eastern most) is approximately 175 feet west of Building 101-42 and the second, lower catchment pit (western most) is approximately 375 feet west of Building 101-42 (Figure 1-2). The upper catchment pit is approximately 70 feet long by 15 feet wide and is up to five feet deep in the center. The lower catchment pit is approximately 100 feet west of the upper catchment pit and measures 110 feet long by 60 feet wide and is up to six feet deep.

The USACE, HWAD, and the NDEP agreed to define the boundaries of each SWMU using annotated monuments and survey pins. As part of Tt's 1997 field investigations, one survey monument was constructed and surveyed at SWMU I15. A brass survey pin on the monument designates the monument number HWAAP-56-1996 and the SWMU

number I15. Five corner pins were set and surveyed to define an irregular SWMU boundary, with the monument as the northwest corner. The location of these corner markers and the SWMU boundary are shown on Figure 1-2. Survey data is presented in Appendix B.

3.0 Site Conditions

Soils encountered during Tt's investigation of SWMU I15 were composed mostly of sands and silty sands. During Tt's 1997 ground water monitoring (Tt 1997e, 1997f), the depth to ground water was measured at approximately 135 feet below ground surface (bgs) at wells IRPMW36 and IRPMW37. These wells are within the southeast corner of the SWMU boundary, approximately 200 feet upgradient from the catchment pits at SWMU I15. Therefore, the ground water beneath SWMU I15 is interpreted to be approximately 135 feet bgs.

4.0 INVESTIGATIONS

Site inspections of SWMU I15 were conducted by the USAEHA (1988), Jacobs Engineering (1988), and RAI (1992). No investigation activities were conducted during these inspections, and no samples were collected from the SWMU at that time. During Tt's 1994 remedial investigation, Target Environmental Services, Inc., (TES) conducted a soil gas survey to screen for VOCs in the near-surface soils. The intent of the soil gas survey was to assess if any areas within the SWMU contained high concentrations of VOCs in the soil gas as an indication of areas where solvents or wastewater that contained solvents were disposed of. Twenty vapor monitoring probes were installed at SWMU I15 to depths of five feet bgs in an irregular pattern. Tt's sampling activities for the remedial investigation at SWMU I15 included collecting and analyzing sediment samples, surface/near-surface soil samples, and subsurface soil samples. The locations of the investigative sampling is shown in figure 3-1.

5.0 Investigation Results

Of the twenty-three soil gas samples collected from twenty locations, 13 samples contained concentrations of trichloroethene (TCE) (1.144 µg/l to 30 µg/l), two samples contained toluene (1.57 µg/l to 2.163 µg/l) and total xylene isomers (4.865 µg/l to 5.52 µg/l). The highest concentrations found were the TCE detections in the samples collected near Building 101-41 from locations SG01 (22 µg/l), SG02 (30 µg/l), and SG03 (24 µg/l).

Cadmium, total chromium, lead, and mercury all were detected in these samples above their respective maximum expected background levels, but only total chromium was detected at a maximum concentration of 21 mg/kg that slightly exceeded its PCG of 20 mg/kg.

TNT was detected in three of the nine surface/near-surface soil samples and in both of the split duplicate samples. Two of these five TNT detections in samples I15-SS05-1-S and I15-SS07-0-S contained concentrations of TNT at 600 mg/kg and 1,500 mg/kg, exceeding the PCG for TNT of 233 mg/kg. Concentrations of RDX (130 mg/kg), TNB (120 mg/kg), and 2,4-DNT (2.7 mg/kg) were detected in the split duplicate sample I15-

DP006R at concentrations that were also above their respective PCGs of 64 mg/kg, 4 mg/kg, and 2.6 mg/kg.

Concentrations of picric acid and RDX were detected in the ground water samples collected during the 1997 first quarter sampling event, detections of these explosives have not been replicated in any subsequent sampling event. Therefore, it was determined that the ground water has not been affected by these explosives from SWMU I15. The source of the VOC' is to be from building 101-41 which is under further investigation. SWMU I-15 did contain explosives contamination above PCG's in pit A. SWMU I-15 pit B did not exhibit any contamination above PCG's.

6.0 Remediation

Explosives contaminated soil from SWMU I-15 was used as part of the composting pilot study in April 1998. Composting is a natural process in which microorganisms biologically degrade organic material. For the destruction of the explosives contamination temperatures in the compost must reach between 120° F — 160° F and the system must remain in aerobic conditions. The windrow system of composting was selected as the most efficient and economical to be used at the site. Nine hundred and forty (940) cubic yards of contaminated soil was removed from I-15 and placed in the compost windrows. Confirmation samples, from the excavated area and finished compost, were taken in accordance with the project work plan. Excavation goals and proposed closure goals/treatment goals were established and accepted by USACE, HWAD and NDEP (appendix A).

7.0 Remediation Results

Contaminated soil was removed from the SWMU and treated in a compost windrow. Confirmation samples from the SWMU and the treated compost were taken to ensure that the contamination was eliminated to levels below treatment goals. The results of the laboratory analysis are presented in appendix D along with the temperature charts of the windrow activity. The location of the SWMU confirmation samples is shown on figures 4-1 and 4-2. The excavation confirmation samples from SWMU I-15 did not show any contamination above the excavation goals; and the samples from the windrows did not show any contamination above the proposed treatment goals.

8.0 Public Involvement:

It is the U.S. Department of Defense and Army policy to involve the local community throughout the investigation process at an installation. To initiate this involvement, HWAD has established and maintains a repository library at the local public library. This repository includes final copies of all past studies and other documents regarding environmental issues at HWAD. As future environmental documents are made available to HWAD the repository shall be updated.

HWAD has solicited community participation in establishment of a restoration and advisory board (RAB). To date there has been insufficient response and HWAD has not formed a RAB. HWAD has held open houses to inform the public of on going

formed a RAB. HWAD has held open houses to inform the public of on going environmental issues. HWAD continues to solicit community involvement, and will establish a RAB should sufficient community interest be obtained.

9.0 Conclusions

The explosives contaminated soil from I-15 has been removed to below excavation goals and contaminated soil was successfully treated to results below treatment goals. The effectiveness of the remediation was checked with confirmation sampling and the SWMU was backfilled with composted soil and covered with clean soil. As such the site should be closed and documented on the depot site master plan with the restriction that no structure be constructed on the site.

10.0 REFERENCES

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Kopp, C.V. 1971. Investigation of Possible Contamination Hazard at an Old Mustard Gas (H) Munitions Burial site on the U.S. Naval Ammunition Depot. Vulnerability Branch, NWL, Dahlgren, VA.

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_____. 1997a. Final Data Package with recommendations for future action, Group B solid waste management units, Hawthorne Army Depot, Hawthorne, Nevada, Volumes 1, 2a and 2b. January 1997.

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_____. 1997d. Final Technical Memorandum Background Sampling at the Hawthorne Army Depot, Hawthorne, Nevada. March 1997.

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_____ 1997f. Quarterly Ground Water Monitoring Report, Second Quarter 1997, Hawthorne Army Depot, Hawthorne, Nevada, July 1997.

_____ 1997g. Final Remedial Investigation Report, Hawthorne Army Depot, Hawthorne, Nevada. December 1997.

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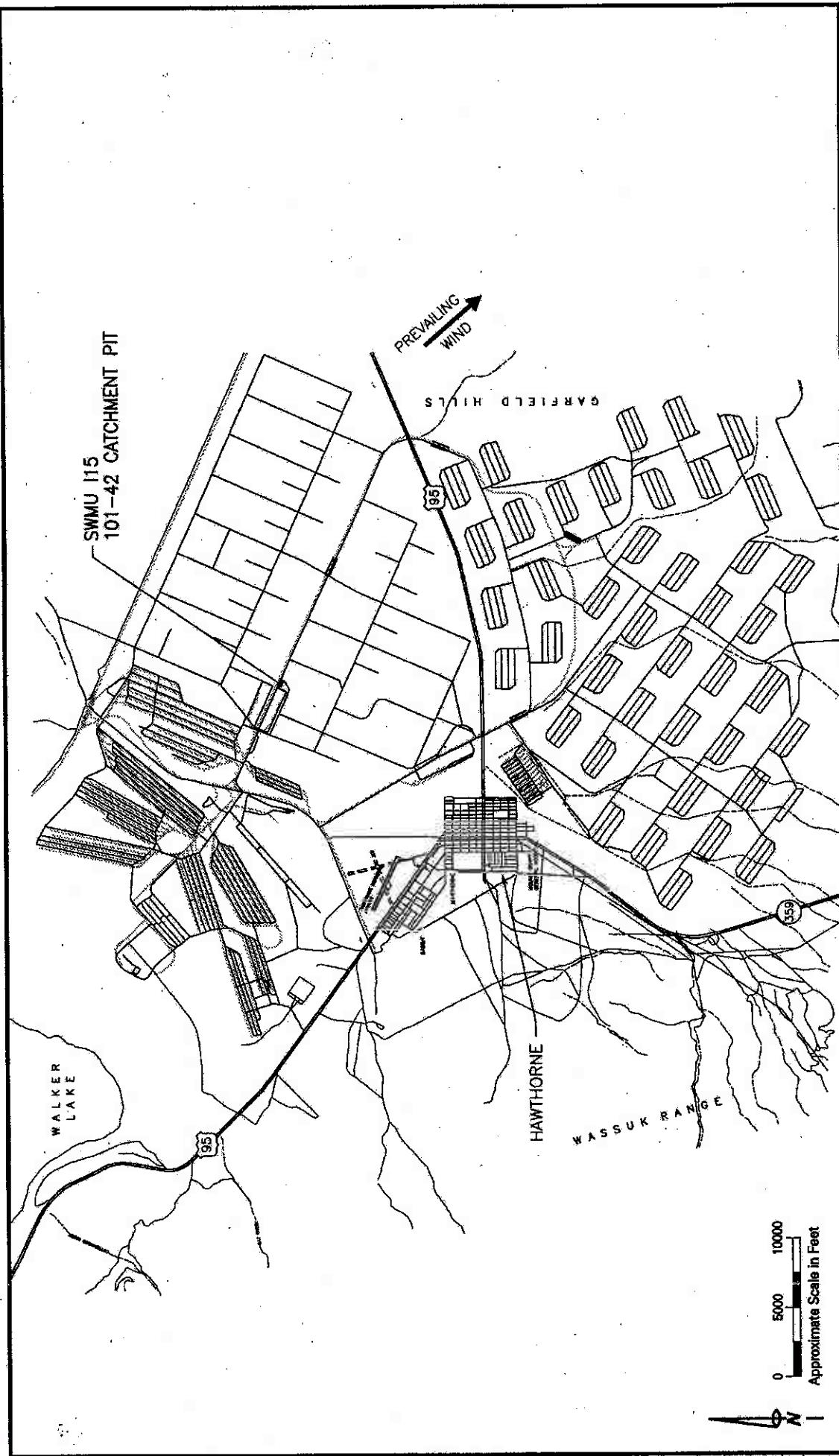
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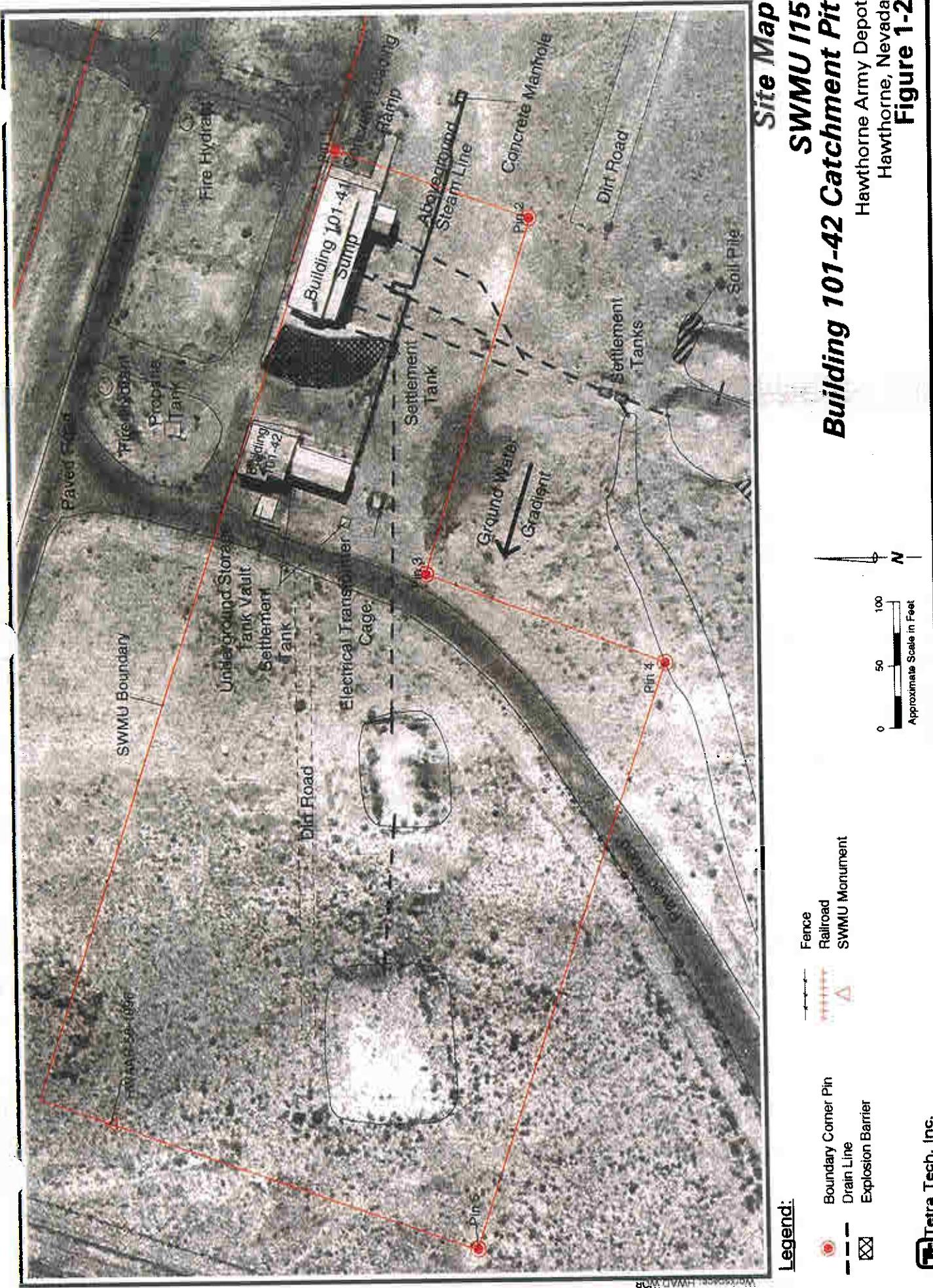
USEPA. 1996. Region IX Preliminary Remediation Goals. USEPA Region IX. August 1996.

Hawthorne Army Depot
Hawthorne, Nevada

**Location Map
SWMU 115
101-42 Catchment Pit**

Figure 1-1



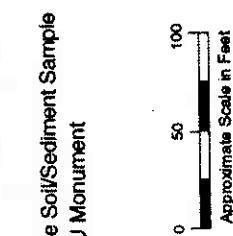


Hawthorne Army Depot
Hawthorne, Nevada
Figure 3-1

Investigation Activity Map

SWMU 115 Building 101-42 Catchment Pit

Dirt Road



Surface Soil/Sediment Sample



SWMU Monument



Explosion Barrier



Fence



Railroad



Soil Gas Location



Boundary Corner Pin



Drain Line



Soil Boring Location



— Soil Line



— Concrete Manhole



— Settlement Tanks



— Electrical Transition Cages

— Ground Water Gradient

— Pavement

— Fire Hydrant

— Settlement Tank

— Under road Surface

— Tank Vault

— Settlement

— Tank

— SB01

— SG01

— SG02

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Appendix A

Proposed Closure Goals
Hawthorne Army Depot
Hawthorne, Nevada

Constituent of Concern	Chemical Classification	Carcinogenic (C) or Non-carcinogenic (NC)	HWAD Proposed Closure Goals for Sol. (mg/Kg)	HWAD Proposed Closure Goal Source
Nitrate	Anion	NC	128,000	Calculated Subpart S ^a
2-Amino-dinitrotoluene	Explosive	NC	-	NA ^b
4-Amino-dinitrotoluene	Explosive	NC	-	NA
1,3-Dinitrobenzene	Explosive	NC	8	Calculated Subpart S
2,4-Dinitrotoluene	Explosive	NC	160	Calculated Subpart S
2,6-Dinitrotoluene	Explosive	NC	80	Calculated Subpart S
HMX	Explosive	NC	4,000	Calculated Subpart S
Nitrobenzene	Explosive	NC	40	Calculated Subpart S
Nitrotoluene (2-, 3-, 4-)	Explosive	NC	800	Calculated Subpart S
RDX	Explosive	NC	64	Calculated Subpart S
Tetryl	Explosive	NC	800	Calculated Subpart S
1,3,5-Trinitrobenzene	Explosive	NC	4	Calculated Subpart S
2,4,6-Trinitrotoluene	Explosive	C	233	Calculated Subpart S
Aluminum	Metal	NC	80,000	Calculated Subpart S
Arsenic (cancer endpoint)	Metal	C & NC	30	Background ^c
Barium and compounds	Metal	NC	5,600	Calculated Subpart S
Beryllium and compounds	Metal	C	1	Background
Cadmium and compounds	Metal	NC	40	Calculated Subpart S
Chromium III and compounds	Metal	NC	80,000	Calculated Subpart S
Lead	Metal	NC	1000	PRG ^d
Mercury and compounds (inorganic)	Metal	NC	24	Calculated Subpart S
Selenium	Metal	NC	400	Calculated Subpart S
Silver and compounds	Metal	NC	400	Calculated Subpart S
Acenaphthene	PAH	NC	4,800	Calculated Subpart S
Benzo[a]anthracene	PAH	C	0.96	Calculated Subpart S
Benzo[a]pyrene	PAH	C	0.10	Detection Limit ^e
Benzo[b]fluoranthene	PAH	C	0.96	Calculated Subpart S
Benzo[k]fluoranthene	PAH	C	10	Calculated Subpart S
Chrysene	PAH	C	96	Calculated Subpart S
Dibenz[ah]anthracene	PAH	C	0.96	Calculated Subpart S
Fluoranthene	PAH	NC	3,200	Calculated Subpart S
Fluorene	PAH	NC	3,200	Calculated Subpart S
Indeno[1,2,3-cd]pyrene	PAH	C	-	NA
Naphthalene	PAH	NC	3,200	Calculated Subpart S
Pyrene	PAH	NC	2,400	Calculated Subpart S
Total Petroleum Hydrocarbons as Diesel (TPH-d)	PAH	C	100	NDEP Level Clean-up ^f
Polychlorinated biphenyls (PCBs)	PCBs	C	25	TSCA ^g
Bis(2-ethylhexyl)phthalate (DEHP)	SVOC	C	1,600	Calculated Subpart S
Bromoform (tribromomethane)	SVOC	C	89	Calculated Subpart S

Proposed Closure Goals
Hawthorne Army Depot
Hawthorne, Nevada

Constituent of Concern	Chemical Classification	Carcinogenic (C) or Non-carcinogenic (NC)	HWAD Proposed Closure Goals for Soil (mg/kg)	HWAD Proposed Closure Goal Source
Butyl benzyl phthalate	SVOC	NC	16,000	Calculated Subpart S
Dibromochloromethane	SVOC	C	83	Calculated Subpart S
Diethyl-phthalate	SVOC	NC	8,000	Calculated Subpart S
Diethyl phthalate	SVOC	NC	64,000	Calculated Subpart S
Phenanthrene	SVOC	-	-	NA
Phenol	SVOC	NC	48,000	Calculated Subpart S
Acetone	VOC	NC	800	Calculated Subpart S
Anthracene	VOC	NC	24,000	Calculated Subpart S
Benzene	VOC	C	24	Calculated Subpart S
Bis(2-chloroisopropyl)ether	VOC	C	3,200	Calculated Subpart S
Bromomethane	VOC	NC	112	Calculated Subpart S
Carbon tetrachloride	VOC	C	5	Calculated Subpart S
Chlorobenzene	VOC	NC	1,600	Calculated Subpart S
Chloroform	VOC	C	115	Calculated Subpart S
Chloromethane	VOC	C	538	Calculated Subpart S
Dibromomethane	VOC	C	0.008	Calculated Subpart S
1,2-Dichlorobenzene	VOC	NC	7,200	Calculated Subpart S
1,4-Dichlorobenzene	VOC	C	18,300	Calculated Subpart S
Dichlorodifluoromethane	VOC	C	16,000	Calculated Subpart S
Ethylbenzene	VOC	NC	8,000	Calculated Subpart S
Methylene bromide	VOC	NC	800	Calculated Subpart S
Methylene chloride	VOC	C	4,800	Calculated Subpart S
2-Methylnaphthalene	VOC	-	-	NA
1,1,2,2-Tetrachloroethane	VOC	C	35	Calculated Subpart S
Tetrachloroethylene (PCE)	VOC	C & NC	800	Calculated Subpart S
Toluene	VOC	NC	16,000	Calculated Subpart S
1,1,1-Trichloroethane	VOC	NC	7,200	Calculated Subpart S
Trichloroethylene (TCE)	VOC	C & NC	480	Calculated Subpart S
Trichlorofluoromethane	VOC	NC	24,000	Calculated Subpart S
1,2,3-Trichloropropane	VOC	C	480	Calculated Subpart S
Vinyl chloride	VOC	C	0.37	Calculated Subpart S
Xylene Total (m-, o-, p-)	VOC	NC	160,000	Calculated Subpart S
2,3,7,8-TCDD	Dioxin	C	0.000005	Calculated Subpart S

* RCRA 55 FR 30870

^a Not available

^b Highest background concentration detected in 50 background soil samples

^c Smucker, Stanford J. USEPA Region IX, Preliminary Remedial Goals, Second Half, Sep. 1995

^d Method detection limit for Volatile Organic Compounds by EPA Method 8260 or

^e Semi-Volatile Organic Compounds analyzed by EPA Method 8270

^f Nevada Division of Environmental Protection

^g Cleanup level for PCB spills in accordance with Toxic Substance and Control Act Spill Policy Guidelines 40 CFR 761

Proposed Pilot Study Excavation Goals

<u>Explosive Compound</u>	<u>Proposed Excavation Goals (mg/kg)</u>
2,4-Dinitrotoluene	2.0
HMX	100
RDX	300
1,3,5-Trinitrobenzene	150
2,4,6-Trinitrotoluene	800

**Proposed Closure Goals/Treatment Goals for Explosives
Hawthorne Army Depot**

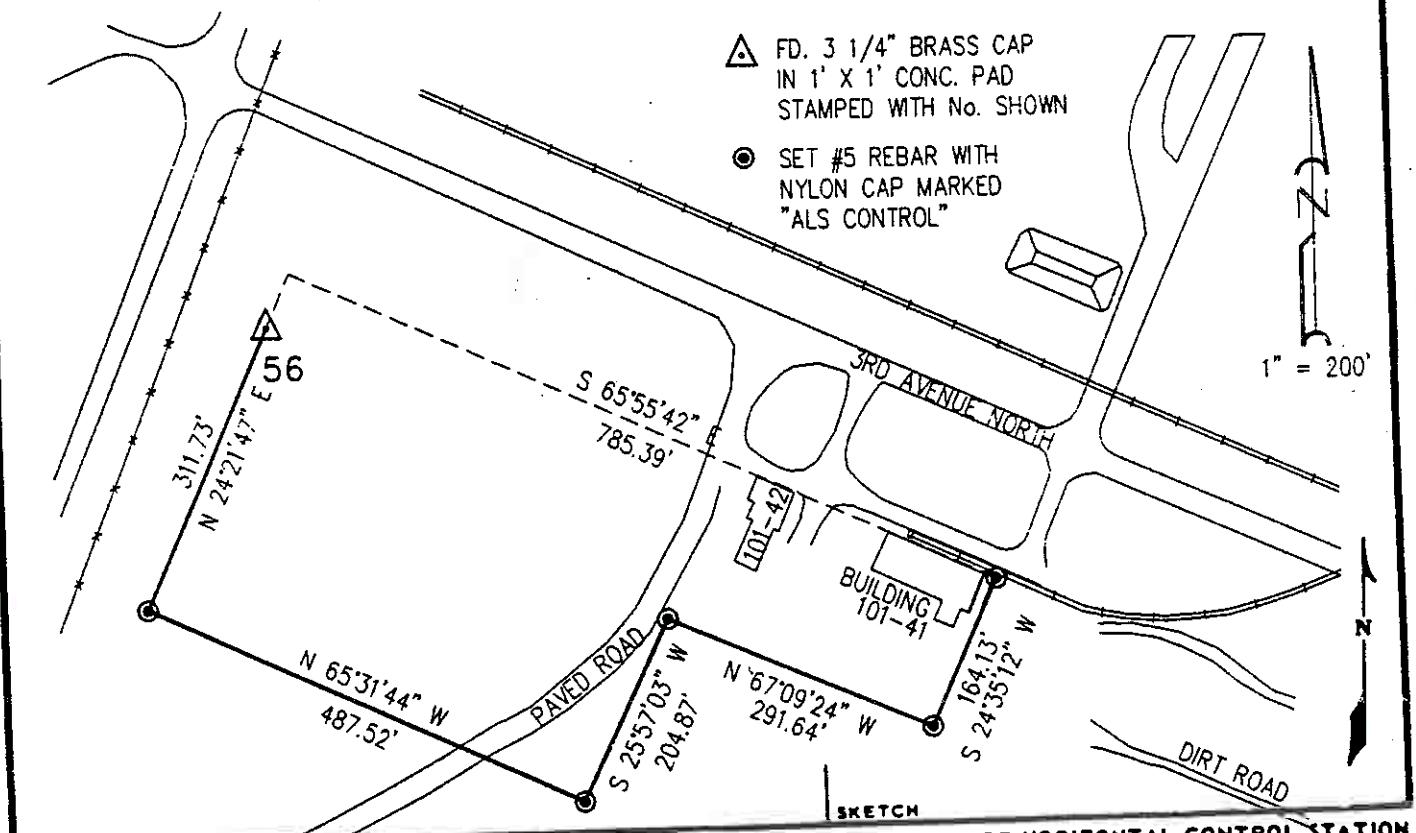
<u>Constituent of Concern</u>	<u>Chemical Classification</u>	<u>Carcinogenic (C) or Noncarcinogenic (NC)</u>	<u>HWAD Proposed Closure Goals for Soil (mg/kg)</u>	<u>HWAD Proposed Closure Goal Source</u>
2-Amino-2,6-dinitrotoluene	Explosive	NC	NE	NE
2-Amino-4,6-dinitrotoluene	Explosive	NC	NE	NE
1,3-Dinitrobenzene	Explosive	NC	8	Subpart S ¹
2,4-Dinitrotoluene	Explosive	NC	2.6	TCLP times 20
2,6-Dinitrotoluene	Explosive	NC	80	Subpart S
HMX	Explosive	NC	4,000	Subpart S
Nitrobenzene	Explosive	NC	40	TCLP times 20
Nitrotoluene (2-, 3-, 4-)	Explosive	NC	800	Subpart S
Ammonium Picrate ²	Explosive	C	7	ATSDR
RDX	Explosive	NC	64	Subpart S
Tetryl	Explosive	NC	800	Subpart S
1,3,5-Trinitrobenzene	Explosive	NC	4	Subpart S
2,4,6-Trinitrotoluene	Explosive	C	233	Subpart S

Notes:

- 1) Subpart S values were calculated from RCRA %% FR 30870
- 2) Ammonium picrate added since 1996 reference (Gravenstein 1997)
- 3) NE - Not established

Appendix B

MONUMENT 56 - SWMU I-15
FROM HIGHWAY 95 TAKE THORNE ROAD NORTHEAST 3 MILES TO 3RD AVENUE
NORTH, THEN GO SOUTHEAST ON 3RD 1.7 MILES TO BUILDING 101-41.
SEE MAP BELOW. MONUMENT IS A 3 1/4" BRASS CAP SET IN A 1' X 1'
CONCRETE PAD AND IS MARKED WITH A 4" X 4" X 6' WOOD POST, PAINTED
WHITE.



DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
For use of this form, see TM 5-237; the proponent
agency is TRADOC.

DA FORM 1 OCT 64 1959 **REPLACES DA FORMS 1958 AND 1960, 1 FEB 57, WHICH ARE OBSOLETE.**

SWMU I15 Survey Data
Hawthorne Army Depot
Hawthorne, Nevada

SWMU	Point ID	Northing (feet)	Easting (feet)	Elevation
I15	HWAAP-56-1996	1388961.07	488488.54	4223.57
I15	Pin 1	1388961.07	488488.54	NE
I15	Pin 2	1388961.07	488488.54	NE
I15	Pin 3	1388961.07	488488.54	NE
I15	Pin 4	1388961.07	488488.54	NE
I15	Pin 5	1388961.07	488488.54	NE
I15	SB01	1388375.94	499909.85	NE
I15	SB02	1388350.39	499674.71	NE
I15	SD01	1388353.87	500075.18	NE
I15	SD02	1388391.76	500103.34	NE
I15	SG01	1388293.56	500292.58	NE
I15	SG02	1388320.16	500249.41	NE
I15	SG03	1388283.36	500222.80	NE
I15	SG04	1388352.19	500157.92	NE
I15	SG05	1388280.07	500116.72	NE
I15	SG06	1388321.98	500059.26	NE
I15	SG07	1388317.57	499994.97	NE
I15	SG08	1388341.86	499949.27	NE
I15	SG09	1388301.63	499936.45	NE
I15	SG10	1388233.89	499901.87	NE
I15	SG11	1388482.29	499936.45	NE
I15	SG12	1388483.62	499728.98	NE
I15	SG13	1388575.27	499634.55	NE
I15	SG14	1388280.38	499585.34	NE
I15	SG15	1388235.21	499770.21	NE
I15	SG16	1388364.06	499639.87	NE
I15	SG17	1388361.41	499707.70	NE
I15	SG18	1388361.41	499759.57	NE
I15	SG19	1388336.17	499851.34	NE
I15	SG20	1388385.32	499558.74	NE
I15	SS01	1388295.25	499898.99	NE
I15	SS02	1388360.34	499906.97	NE
I15	SS03	1388402.85	499720.77	NE
I15	SS04	1388324.47	499716.78	NE
I15	SS05	1388410.82	499630.33	NE
I15	SS06	1388329.98	499619.69	NE
I15	SS07	1388366.98	499671.56	NE
I15	SS08	1388328.46	499835.15	NE

Notes:

NE = Not established

Coordinate data based on electronic map file using the NAD 1927 datum.

Elevation data based on surveyors map using NGVD 1929 datum.

Appendix C

E. *essives*
Method 8330 (APCL)

Notes:

NA = Not analyzed
NE = Not established

Explosives
Method 8330 (APCCL)

Sample ID	Location	Sample ID	Date	Depth	Nitrobenzene			Tetralin			RDX			2-Amino-4,6-dinitrotoluene			
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
I15-SB02-1-S		SB02	2/26/97	6.5	<0.071	3.2	<0.058	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I15-SB02-2-S		SB02	2/26/97	6.5	<0.069	3.4	<0.056	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I15-SB02-3-S		SB02	2/26/97	11	<0.059	10.2	<0.048	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I15-SB02-4-S		SB02	2/26/97	20.5	<0.069	5	<0.057	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I15-SB02-5-S		SB02	2/26/97	25	<0.059	1.2	<0.048	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I15-SB02-6-S		SB02	2/26/97	29.5	<0.06	9.72	<0.049	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analyses					15	15	15	5	5	5							
Detections					0	10	0	0	0	0							
Minimum Concentration					0	1.2	0	0	0	0							
Maximum Concentration					0	29	0	0	0	0							
HWAD - PCG					40	64	800	NE	NE	NE							
HWAD - PCG Hits					0	0	0	NE	NE	NE							

Notes:

NA = Not analyzed

NE = Not established

Explosives
Method 8330 (DataChem)

Sample ID	Location ID	Sample Date	Depth	1,3,5-Trinitrobenzene	2,4,6-Trinitrotoluene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	3-Nitrotoluene	4-Nitrotoluene	HMX	Nitrobenzene	RDX
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
I15-DP006R	SS07	7/8/94	0	120	1.2	190	2.7	<0.17	1.5	NA	NA	130

Notes:
NA = Not analyzed

Ex-sives
Method 8330 (Datachem)

Sample ID	Location ID	Sample Date	TETRYL	mg/kg
115-DP006R	SS07	7/8/94	0	NA
<hr/>				
Analyses			0	
Detections			0	
Minimum Concentration			0	
Maximum Concentration			0	
<hr/>				
HWAD - PCG			800	
HWAD - PCG Hits			0	

Notes:

NA = Not analyzed

RDX Test Kit
Method 8510 (Tt Field)

Sample ID	Location ID	Sample Date	Depth	RDX mg/kg	RDX-Dup mg/kg
I15-SB02-1-S	SB02	2/26/97	6.5	6.5	NA
I15-SB02-2-S	SB02	2/26/97	6.5	2.49	NA
Analyses				13	0
Detections				10	0
Minimum Concentration				1.07	0
Maximum Concentration				777.78	0
HWAD - PCG				64	NE
HWAD - PCG Hits				4	NE

Notes:

NA = Not analyzed

NE = Not established

TNT Test Kit
Method 8515 (Tt Field)

Sample ID	Location ID	Date	Sample Depth	2,4,6-TNT mg/kg	2,4,6-TNT-Dup mg/kg
I15-SB02-1-S	SB02	2/26/97	6.5	22.97	NA
I15-SB02-2-S	SB02	2/26/97	6.5	20.37	NA
Analyses				13	0
Detections				7	0
Minimum Concentration				20.37	0
Maximum Concentration				6997	0
Standard Deviation				1840.63	0.319763
HWAD - PCG				233	NE
HWAD - PCG Hits				5	NE

Notes:

NA = Not analyzed

NE = Not established

Petroleum Hydrocarbons
Method M8015E (APCL)

Sample ID	Location ID	Sample Date	Depth	C11-C22 (Diesel)	C23-C30 (Motor oil)	C31-C40 (Heavy oil)	C8-C10 (Gasoline)	Diesel Fuel
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
I15-SB02-4-S	SB02	2/26/97	20.5	<1	<0.46	<0.35	<0.19	NA
Analyses				1	1	1	1	0
Detections				0	0	0	0	0
Minimum Concentration				0	0	0	0	0
Maximum Concentration				0	0	0	0	0
HWAD - PCG				100	NE	NE	NE	100
HWAD - PCG Hits				0	NE	NE	NE	0

Notes:

NA = Not analyzed

NE = Not established

Explosives
Method M8330 (APCL)

Sample ID	Location ID	Sample Date	Depth	Picric Acid
mg/kg				
I15-SB02-1-S	SB02	2/26/97	6.5	<0.88
I15-SB02-2-S	SB02	2/26/97	6.5	<0.85
I15-SB02-3-S	SB02	2/26/97	11	<0.73
I15-SB02-4-S	SB02	2/26/97	20.5	<0.85
I15-SB02-5-S	SB02	2/26/97	25	<0.73
I15-SB02-6-S	SB02	2/26/97	29.5	<0.74
<hr/>				
Analyses				6
Detections				0
Minimum Concentration				0
Maximum Concentration				0
<hr/>				
HWAD - PCG				NE
HWAD - PCG Hits				NE

Notes:

NE = Not established

Analyses
Method 6010 (BCA)

Sample ID	Location ID	Sample Date	Depth	Aluminum	Arsenic	Barium	Cadmium	Chromium	Lead	Selenium	Silver
I15-SD01-1-S	SD01	7/10/94	0	NA	5.5 ^J	43	<0.2	1 ^J	7.5 ^J	<5	<1
I15-SD02-1-S	SD02	7/19/94	0	NA	<33	110	11	21 ^J	52 ^J	<42	<7.5
I15-SS01-1-S	SS01	7/8/94	0	NA	<4	120	<0.2	5.8	<5	<5	<1
I15-SS02-1-S	SS02	7/8/94	0	NA	5.3 ^J	120	<0.2	6.2	<5	<5	<0.9
I15-SS03-1-S	SS03	7/8/94	0	NA	<4	48	<0.2	5.4	<5	<5	<0.9
I15-SS04-1-S	SS04	7/8/94	0	NA	<4	75	<0.2	3.4 ^J	6.4 ^J	<5	<0.9
I15-SS05-1-S	SS05	7/8/94	0	NA	<4	57	<0.2	5.7	6.7 ^J	<5	<0.9
I15-SS06-1-S	SS06	7/8/94	0	NA	<4	50	<0.2	4.7 ^J	<5	<5	<0.9
I15-SS07-1-S	SS07	7/8/94	0	NA	<4	62	<0.2	6.5	<5	<5	<0.9
I15-SS08-1-S	SS08	7/8/94	0	NA	4.4 ^J	180	<0.2	11 ^J	11 ^J	<5	<1
<hr/>											
Analyses				0	10	10	10	10	10	10	10
Detections				0	3	10	1	10	5	0	0
Minimum Concentration				0	4.4	43	11	1	6.4	0	0
Maximum Concentration				0	5.5	180	11	21	52	0	0
<hr/>											
HWAD - PCG				80000	100	2000	20	20	100	20	100
HWAD - PCG Hits				0	0	0	0	1	0	0	0
Maximum Background Concentration				12365	18.1	447	1.08	13.76	16.7	0	0
Background Hits				0	0	0	1	1	1	0	0

Notes:

NA = Not analyzed

Mercury
Method 7471 (BCA)

Sample ID	Location ID	Sample Date	Depth	Mercury
mg/kg				
I15-SD01-1-S	SD01	7/10/94	0	0.28
I15-SD02-1-S	SD02	7/19/94	0	<0.33
I15-SS01-1-S	SS01	7/8/94	0	<0.04
I15-SS02-1-S	SS02	7/8/94	0	0.042
I15-SS03-1-S	SS03	7/8/94	0	<0.04
I15-SS04-1-S	SS04	7/8/94	0	<0.04
I15-SS05-1-S	SS05	7/8/94	0	<0.04
I15-SS06-1-S	SS06	7/8/94	0	<0.04
I15-SS07-1-S	SS07	7/8/94	0	<0.04
I15-SS08-1-S	SS08	7/8/94	0	0.093
<hr/>				
Analyses				10
Detections				3
Minimum Concentration				0.042
Maximum Concentration				0.28
<hr/>				
HWAD - PCG				24
HWAD - PCG Hits				0
<hr/>				
Maximum Background Concentration				0.108
Background Hits				1

Ex-situ
Method 8090M (BCA Field)

Sample ID	Location ID	Date	Sample Depth								
				1,3,5-Trinitrobenzene	2,3-Dinitrobenzene	2,4,6-Trinitrotoluene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Nitrotoluene	3-Nitrotoluene	
I15-DP007	SS07	7/8/94	0	<312.5 mg/kg	<156.25 mg/kg	NA	172 mg/kg	<156.25 mg/kg	<156.25 mg/kg	<156.25 mg/kg	<156.25 mg/kg
I15-DD01-1-S	SD01	7/10/94	0	<0.5 mg	<0.25 mg	NA	<0.25 mg	<0.25 mg	<0.25 mg	<0.25 mg	<0.25 mg
I15-DD02-1-S	SD02	7/19/94	0	<0.5 mg	<0.25 mg	NA	<0.25 mg	<0.25 mg	<0.25 mg	<0.25 mg	<0.25 mg
I15-SS01-1-S	SS01	7/8/94	0	<0.5 mg	<0.25 mg	NA	<0.25 mg	<0.25 mg	<0.25 mg	<0.25 mg	<0.25 mg
I15-SS02-1-S	SS02	7/8/94	0	<0.5 mg	<0.25 mg	NA	<0.25 mg	<0.25 mg	<0.25 mg	<0.25 mg	<0.25 mg
I15-SS03-1-S	SS03	7/8/94	0	<0.5 mg	<0.25 mg	NA	<0.25 mg	<0.25 mg	<0.25 mg	<0.25 mg	<0.25 mg
I15-SS04-1-S	SS04	7/8/94	0	<0.5 mg	<0.25 mg	NA	<0.25 mg	<0.25 mg	<0.25 mg	<0.25 mg	<0.25 mg
I15-SS05-1-S	SS05	7/8/94	0	<312.5 mg	<156.25 mg	NA	600 mg	<156.25 mg	<156.25 mg	<156.25 mg	<156.25 mg
I15-SS06-1-S	SS06	7/8/94	0	<0.5 mg	<0.25 mg	NA	<0.25 mg	<0.25 mg	<0.25 mg	<0.25 mg	<0.25 mg
I15-SS07-0-S	SS07	7/8/94	0	<312.5 mg	<156.25 mg	NA	1500 mg	<156.25 mg	<156.25 mg	<156.25 mg	<156.25 mg
I15-SS07-1-S	SS07	7/8/94	0	<312.5 mg	<156.25 mg	NA	72.7 mg	<156.25 mg	<156.25 mg	<156.25 mg	<156.25 mg
I15-SS08-1-S	SS08	7/8/94	0	<0.5 mg	<0.25 mg	NA	<0.25 mg	<0.25 mg	<0.25 mg	<0.25 mg	<0.25 mg
				12	12	0	12	12	12	12	12
Analyses	Detections	Minimum Concentration	Maximum Concentration	HWAD - PCG	HWAD - PCG Hits						
		0	0	4	0	0	0	0	0	0	0
		0	0	72.7	0	0	0	0	0	0	0
		0	0	1500	0	0	0	0	0	0	0
		4	8	NE	233	2.6	80	800	800	800	800
		0	0	NE	2	0	0	0	0	0	0

Notes:

NA = Not analyzed

NE = Not established

E. Sives
Method 8090M (BCA Field)

Sample ID	Location ID	Sample Date	Depth	4-Nitrotoluene				Nitrobenzene			
				RDX	Tetryl	RDX	Tetryl	RDX	Tetryl	RDX	Tetryl
I15-DP007	SS07	7/8/94	0	<156.25	<156.25	<31250	R	<156.25	<156.25	<31250	R
I15-SD01-1-S	SD01	7/10/94	0	<0.25	<0.25	<50	R	<0.25	<0.25	<50	R
I15-SD02-1-S	SD02	7/19/94	0	<0.25	<0.25	<50	R	<0.25	<0.25	<50	R
I15-SS01-1-S	SS01	7/8/94	0	<0.25	<0.25	<50	R	<0.25	<0.25	<50	R
I15-SS02-1-S	SS02	7/8/94	0	<0.25	<0.25	<50	R	<0.25	<0.25	<50	R
I15-SS03-1-S	SS03	7/8/94	0	<0.25	<0.25	<50	R	<0.25	<0.25	<50	R
I15-SS04-1-S	SS04	7/8/94	0	<0.25	<0.25	<50	R	<0.25	<0.25	<50	R
I15-SS05-1-S	SS05	7/8/94	0	<156.25	<156.25	<31250	R	<156.25	<156.25	<31250	R
I15-SS06-1-S	SS06	7/8/94	0	<0.25	<0.25	<50	R	<0.25	<0.25	<50	R
I15-SS07-0-S	SS07	7/8/94	0	<156.25	<156.25	<31250	R	<156.25	<156.25	<31250	R
I15-SS07-1-S	SS07	7/8/94	0	<156.25	<156.25	<31250	R	<156.25	<156.25	<31250	R
I15-SS08-1-S	SS08	7/8/94	0	<0.25	<0.25	<50	R	<0.25	<0.25	<50	R

Analyses
Detections
Minimum Concentration
Maximum Concentration

HWAD - PCG
HWAD - PCG Hits

Notes:
NA = Not analyzed
NE = Not established

Volatile Organic Compounds
Method 8260 (BCA)

Sample ID	Location ID	Sample Date	Depth	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1,1,1,2-Tetrachloroethane									
I15-DP105	SD02	7/19/94	0	<0.003	u-	<0.0046	u-	<0.0015	u-
I15-SD01-1-S	SD01	7/10/94	0	<0.004	u-	<0.0006	u-	<0.0002	u-
I15-SD02-1-S	SD02	7/19/94	0	<0.0033	u-	<0.0049	u-	<0.0016	u-
1,1,2,2-Tetrachloroethane									
1,1,1-Trichloroethane									
1,1,2-Trichloroethane									
1,1-Dichloroethane									
1,2-Dichloroethene									
1,2-Dichloropropane									
1,2,3-Trichloropropane									
1,2-Dichlorobenzene									
1,2-Dichloroethane									
1,2-Dichloropropane									
1,2-Dichloroethene									
1,2,3-Trichloroethene									
1,2-Dichloroethane									
1,2-Dichloropropane									
1,2-Dichloroethene									
1,2,3-Trichloroethene									
1,2-Dichloroethane									
1,2-Dichloropropane									
1,2-Dichloroethene									
1,2,3-Trichloroethene									
1,2-Dichloroethane									
1,2-Dichloropropane									
1,2-Dichloroethene									
1,2,3-Trichloroethene									
1,2-Dichloroethane									
1,2-Dichloropropane									
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1,2-Dichloroethene									
1,2,3-Trichloroethene									
1,2-Dichloroethane									
1,2-Dichloropropane									
1,2-Dichloroethene									
1,2,3-Trichloroethene									
1,2-Dichloroethane</									

Volatile Organic Compounds
Method 8260 (BCA)

Sample ID	Location ID	Sample Date	Depth	Benzene				Benzyl chloride				Bromobenzene				Bromodichloromethane				Bromoform				
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
I15-DP105	SD02	7/19/94	0	u-	<0.0015	u-	<0.003	u-	<0.0046	u-	<0.0015	u-	<0.0046	u-	<0.00046	u-	<0.0004	u-	<0.0004	u-	<0.0015	u-	<0.0015	u-
I15-SD01-1-S	SD01	7/10/94	0	u-	<0.0002	u-	<0.0004	u-	<0.0006	u-	<0.0002	u-	<0.0006	u-	<0.00046	u-	<0.00049	u-	<0.00049	u-	<0.0002	u-	<0.0002	u-
I15-SD02-1-S	SD02	7/19/94	0	u-	<0.0016	u-	<0.0033	u-	<0.0049	u-	<0.0016	u-	<0.0049	u-	<0.0033	u-	<0.0033	u-	<0.0033	u-	<0.0016	u-	<0.0016	u-
Analyses				3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Detections				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Concentration				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HWAD - PCG				NE	150	NE	10	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
HWAD - PCG Hits				NE	0	NE	0	NE	0	NE	0	NE	0	NE	0	NE	0	NE	0	NE	0	NE	0	NE

Notes:

NE = Not established

Volatile Organic Compounds
Method 8260 (BCA)

Sample ID	Location ID	Sample Date	Depth	Chloroethane			Chloromethane			Dibromochloromethane			Ethylbenzene		
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
I15-DP105	SD02	7/19/94	0	<0.0046	U-	<0.0015	U-	<0.0015	U-	<0.0046	U-	<0.0015	U-	<0.0007	U-
I15-SD01-1-S	SD01	7/10/94	0	<0.0006	<0.0002	<0.0002	<0.0002	<0.0006	<0.0002	<0.0006	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002
I15-SD02-1-S	SD02	7/19/94	0	<0.0049	U-	<0.0016	U-	<0.0016	U-	<0.0049	U-	<0.0016	U-	<0.0008	U-
Analyses				3	3	3	3	3	3	3	3	3	3	3	3
Detections				0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration				0	0	0	0	0	0	0	0	0	0	0	0
Maximum Concentration				0	0	0	0	0	0	0	0	0	0	0	0
HWAD - PCG				10	2000	NE	120	538	NE	83	800	16000	8000		
HWAD - PCG Hits				0	0	NE	0	0	NE	0	0	0	0	0	0

Notes:

NE = Not established

Volatile Organic Compounds
Method 8260 (BCA)

Sample ID	Location ID	Sample Date	Depth	Toluene				Methylene chloride				Tetrachloroethylene				trans-1,2-Dichloroethene				trans-1,3-Dichloropropene				Trichloroethylene				Trichlorofluoromethane			
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
I15-DP105	SD02	7/19/94	0	0.92	<0.0046	<0.003	<0.0046	<0.0015	<0.0008	<0.0007	U-	<0.0015	<0.0002	<0.001	<0.0001	<0.0008	<0.0008	<0.0008	<0.0008	<0.0016	<0.0015	U-	<0.0002	<0.0001	<0.0008	<0.0008	<0.0016	U-			
I15-SD01-1-S	SD01	7/10/94	0	0.013	<0.0006	<0.0004	<0.0006	<0.0002	<0.0002	<0.0001	U-	<0.0016	<0.0016	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	U-		
I15-SD02-1-S	SD02	7/19/94	0	0.23	<0.0049	<0.0033	<0.0049	<0.0049	<0.0016	<0.0016	U-	<0.0016	<0.0016	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	U-		
Analyses				3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
Detections				3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Minimum Concentration				0.013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Maximum Concentration				0.92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
HWAD - PCG				4800	15	16000	160000	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
HWAD - PCG Hits				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Notes:

NE = Not established

Volatile Organic Compounds
Method 8260A (APCL)

Sample ID	Location ID	Sample Date	Depth	Toluene					
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
I15-SB02-1-S	SB02	2/26/97	6.5	<0.0001	<0.0001	<0.0003	<0.0001	<0.0003	<0.0003
I15-SB02-2-S	SB02	2/26/97	6.5	<0.0001	<0.0001	<0.0003	<0.0001	<0.0003	<0.0003
I15-SB02-3-S	SB02	2/26/97	11	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0002
I15-SB02-4-S	SB02	2/26/97	20.5	<0.0001	<0.0001	<0.0003	<0.0001	<0.0003	<0.0003
I15-SB02-5-S	SB02	2/26/97	25	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0002
I15-SB02-6-S	SB02	2/26/97	29.5	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0002
Analyses				6	6	6	6	6	6
Detections				0	0	0	0	0	0
Minimum Concentration				0	0	0	0	0	0
Maximum Concentration				0	0	0	0	0	0
HWAD - PCG				NE	NE	NE	15	16000	NE
HWAD - PCG Hits				NE	NE	NE	0	0	NE
Notes:				NE = Not established					

Volatile Organic Compounds
Method 8260A (APCL)

Sample ID	Location ID	Sample Date	Depth	Vinyl chloride	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1-Dichloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloropropane	1,2,3-Trichlorobenzene	
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
I15-SB02-1-S	SB02	2/26/97	6.5	<0.0003	<0.0001	<0.0003	<0.0001	<0.0003	<0.0001	<0.0003	<0.0001	<0.0001	
I15-SB02-2-S	SB02	2/26/97	6.5	<0.0003	<0.0001	<0.0003	<0.0001	<0.0003	<0.0001	<0.0003	<0.0001	<0.0001	
I15-SB02-3-S	SB02	2/26/97	11	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	
I15-SB02-4-S	SB02	2/26/97	20.5	<0.0003	<0.0001	<0.0003	<0.0001	<0.0003	<0.0001	<0.0003	<0.0001	<0.0001	
I15-SB02-5-S	SB02	2/26/97	25	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0001	
I15-SB02-6-S	SB02	2/26/97	29.5	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0001	
Analyses				6	6	6	6	6	6	6	6	6	6
Detections				0	0	0	0	0	0	0	0	0	0
Minimum Concentration				0	0	0	0	0	0	0	0	0	0
Maximum Concentration				0	0	0	0	0	0	0	0	0	0
HWAD - PCG				24000	NE	7200	35	NE	NE	NE	NE	NE	6
HWAD - PCG Hits				0	NE	0	0	NE	NE	NE	NE	NE	0

Notes:

NE = Not established

Volatile Organic Compounds
Method 8260A (APCL)

Sample ID	Location ID	Sample Date	Depth	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
I15-SB02-1-S	SB02	2/26/97	6.5	<0.0005	<0.0003	<0.0006	<0.0001	<0.0003
I15-SB02-2-S	SB02	2/26/97	6.5	<0.0005	<0.0003	<0.0006	<0.0001	<0.0003
I15-SB02-3-S	SB02	2/26/97	11	<0.0004	<0.0002	<0.0005	<0.0001	<0.0002
I15-SB02-4-S	SB02	2/26/97	20.5	<0.0005	<0.0003	<0.0006	<0.0001	<0.0003
I15-SB02-5-S	SB02	2/26/97	25	<0.0004	<0.0002	<0.0005	<0.0001	<0.0002
I15-SB02-6-S	SB02	2/26/97	29.5	<0.0004	<0.0002	<0.0001	<0.0005	<0.0002
Analyses				6	6	6	6	6
Detections				0	0	0	0	0
Minimum Concentration				0	0	0	0	0
Maximum Concentration				0	0	0	0	0
HWAD - PCG				480	NE	NE	NE	NE
HWAD - PCG Hits				0	NE	NE	NE	NE
1,2,3-Trichloropropane								
1,2,4-Trimethylbenzene								
1,2-Dibromoethane (EDB)								
1,2-Dichlorobenzene								
1,2-Dichloroethane								
1,2-Dichloropropane								
1,3,5-Trimethylbenzene								
1,3-Dichlorobenzene								

Notes:
NE = Not established

Volatile Organic Compounds
Method 8260A (APCL)

Sample ID	Location ID	Sample Date	Depth	Benzene		Bromobenzene		Bromoform	
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
I15-SB02-1-S	SB02	2/26/97	6.5	<0.0003	<0.0001	<0.0003	<0.0003	<0.0001	<0.0006
I15-SB02-2-S	SB02	2/26/97	6.5	<0.0003	<0.0001	<0.0003	<0.0003	<0.0001	<0.0006
I15-SB02-3-S	SB02	2/26/97	11	<0.0002	<0.0001	<0.0002	<0.0002	<0.0001	<0.0005
I15-SB02-4-S	SB02	2/26/97	20.5	<0.0003	<0.0001	<0.0003	<0.0003	<0.0001	<0.0006
I15-SB02-5-S	SB02	2/26/97	25	<0.0002	<0.0001	<0.0002	<0.0002	<0.0001	<0.0005
I15-SB02-6-S	SB02	2/26/97	29.5	<0.0002	<0.0001	<0.0002	<0.0002	<0.0001	<0.0005
				6	6	6	6	6	6
				0	0	0	0	0	0
				0	0	0	0	0	0
				0	0	0	0	0	0
				NE	150	NE	NE	10	NE
				NE	0	NE	NE	0	NE
				NE	0	NE	NE	0	NE

Notes:
NE = Not established

Volatile Organic Compounds
Method 8260A (APCL)

Sample ID	Location ID	Sample Date	Depth	Bromodichloromethane					
				Bromoform	Bromomethane	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform
I15-SB02-1-S		SB02	2/26/97	6.5	<0.0003	<0.0004	<0.0001	<0.0003	<0.0004
I15-SB02-2-S		SB02	2/26/97	6.5	<0.0003	<0.0004	<0.0001	<0.0003	<0.0004
I15-SB02-3-S		SB02	2/26/97	11	<0.0002	<0.0003	<0.0001	<0.0002	<0.0003
I15-SB02-4-S		SB02	2/26/97	20.5	<0.0003	<0.0004	<0.0001	<0.0003	<0.0004
I15-SB02-5-S		SB02	2/26/97	25	<0.0002	<0.0003	<0.0001	<0.0002	<0.0003
I15-SB02-6-S		SB02	2/26/97	29.5	<0.0002	<0.0003	<0.0001	<0.0002	<0.0003
Analyses				6	6	6	6	6	6
Detections				0	0	0	0	0	0
Minimum Concentration				0	0	0	0	0	0
Maximum Concentration				0	0	0	0	0	0
HWAD - PCG				NE	89	112	10	2000	NE
HWAD - PCG Hits				NE	0	0	0	NE	0
Notes:									

Notes:
NE = Not established

Volatile Organic Compounds
Method 8260A (APCL)

Sample ID	Location ID	Sample Date	Depth	m- & p-Xylenes							
				Isopropylbenzene	Ethylbenzene	Dibromomethane	Dibromochloropropane	Dichlorodifluoromethane	1,3-Dichloropropene	Cis-1,3-Dichloropropene	Dibromochloromethane
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
I15-SB02-1-S	SB02	2/26/97	6.5	<0.0001	<0.0003	<0.001	<0.0006	<0.0003	<0.0001	<0.0003	<0.0006
I15-SB02-2-S	SB02	2/26/97	6.5	<0.0001	<0.0003	<0.001	<0.0006	<0.0003	<0.0001	<0.0003	<0.0006
I15-SB02-3-S	SB02	2/26/97	11	<0.0001	<0.0002	<0.001	<0.0005	<0.0002	<0.0001	<0.0002	<0.0005
I15-SB02-4-S	SB02	2/26/97	20.5	<0.0001	<0.0003	<0.001	<0.0006	<0.0003	<0.0001	<0.0003	<0.0006
I15-SB02-5-S	SB02	2/26/97	25	<0.0001	<0.0002	<0.001	<0.0005	<0.0002	<0.0001	<0.0002	<0.0005
I15-SB02-6-S	SB02	2/26/97	29.5	<0.0001	<0.0002	<0.001	<0.0005	<0.0002	<0.0001	<0.0002	<0.0005
Analyses				6	6	6	6	6	6	6	6
Detections				0	0	0	0	0	0	0	0
Minimum Concentration				0	0	0	0	0	0	0	0
Maximum Concentration				0	0	0	0	0	0	0	0
HWAD - PCG				NE	83	NE	800	16000	8000	NE	NE
HWAD - PCG Hits				NE	0	NE	0	0	0	NE	0

Notes:
NE = Not established

Volatile Organic Compounds
Method 8260A (APCL)

Sample ID	Location ID	Sample Date	Depth	MTBE		n-Propylbenzene		n-Butylbenzene		Naphthalene		o-Xylene	
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
I15-SB02-1-S	SB02	2/26/97	6.5	<0.0009	<0.0003	<0.0003	<0.0001	<0.0003	<0.0001	<0.0003	<0.0001	<0.0001	
I15-SB02-2-S	SB02	2/26/97	6.5	<0.0009	<0.0003	<0.0003	<0.0001	<0.0003	<0.0001	<0.0003	<0.0001	<0.0001	
I15-SB02-3-S	SB02	2/26/97	11	<0.0008	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0001	
I15-SB02-4-S	SB02	2/26/97	20.5	<0.0009	<0.0003	<0.0003	<0.0001	<0.0003	<0.0001	<0.0003	<0.0001	<0.0001	
I15-SB02-5-S	SB02	2/26/97	25	<0.0008	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0001	
I15-SB02-6-S	SB02	2/26/97	29.5	<0.0008	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0001	
Analyses				6	6	6	6	6	6	6	6	6	6
Detections				0	0	0	0	0	0	0	0	0	0
Minimum Concentration				0	0	0	0	0	0	0	0	0	0
Maximum Concentration				0	0	0	0	0	0	0	0	0	0
HWAD - PCG				4800	NE	NE	NE	NE	NE	3200	160000		
HWAD - PCG Hits				0	NE	NE	NE	NE	NE	0	0	0	0

Notes:
NE = Not established

Appendix D

Explosives
Method 8330 (APCL)

Sample ID	Location ID	Sample Date	Deg F	Lab	HMX						
					1,3,5-Trinitrobenzene	2,4,6-Trinitrotoluene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	3-Nitrotoluene	4-Nitrotoluene	
PS-WR01-6-S	WR01	5/24/97	1	APCL	7.8	<0.15	36.1	<0.188	<0.2	<0.38	<0.32
PS-WR01-14-S	WR01	5/27/97	2	APCL	0.8	<0.6	2.5	<0.72	<0.76	<1.48	<1.28
PS-WR01-18-S	WR01	5/31/97	1	APCL	<1.2	<0.64	<1.08	<0.8	<0.88	<1.68	<1.2
PS-WR01-22-S	WR01	6/7/97	1	APCL	0.35	<0.026	1.4	<0.027	<0.059	<0.076	<0.076
PS-WR01-25-S	WR01	6/7/97	1	APCL	1.1	<0.44	1.7	<0.48	<1	<1.32	<1.12
PS-WR01-28-S	WR01	6/19/97	1.5	APCL	5.4	NA	0.89	<0.046	<0.049	<0.095	<0.068
PS-WR01-29-S	WR01	6/19/97	1.5	APCL	<0.069	NA	0.65	<0.046	<0.05	<0.096	<0.069
PS-WR01-30-S	WR01	6/19/97	1.5	APCL	<0.072	<0.039	0.98	<0.048	<0.052	<0.1	<0.072
PS-WR01-31-S	WR01	6/19/97	1.5	APCL	0.44	<0.039	1.3	<0.048	<0.051	<0.099	<0.071
PS-WR01-32-S	WR01	6/19/97	1.5	APCL	<0.071	<0.038	0.39	<0.048	<0.051	<0.099	<0.071
PS-WR01-33-S	WR01	6/19/97	1.5	APCL	<0.073	<0.039	0.57	<0.049	<0.052	<0.1	<0.073
PS-WR02-1-S	WR02	6/19/97	1.5	APCL	0.5	<0.045	0.45	<0.056	<0.06	<0.12	<0.083
PS-WR02-2-S	WR02	6/19/97	1.5	APCL	<0.082	<0.044	<0.074	<0.055	<0.059	<0.11	<0.082
PS-WR02-3-S	WR02	6/19/97	1.5	APCL	1	<0.04	<0.066	<0.049	<0.053	<0.1	<0.073
PS-WR02-4-S	WR02	6/19/97	1.5	APCL	<0.084	<0.045	<0.076	<0.056	<0.061	<0.12	<0.084
PS-WR02-5-S	WR02	6/19/97	1.5	APCL	0.34	<0.039	0.76	<0.049	<0.053	<0.1	<0.073
PS-WR02-6-CS	WR02	7/7/97	0.5	APCL	0.2	<0.026	2	<0.027	<0.059	<0.075	<0.065
PS-WR03-1-S	WR03	6/20/97	2	APCL	<0.016	0.07	<0.049	<0.032	<0.068	<0.087	<0.075
PS-WR03-2-S	WR03	6/20/97	2	APCL	<0.019	0.09	<0.058	<0.038	<0.082	<0.1	<0.09
PS-WR03-3-S	WR03	6/20/97	2	APCL	<0.019	<0.036	<0.057	<0.037	<0.08	<0.1	<0.089
PS-WR03-4-CS	WR03	7/7/97	0.5	APCL	<0.013	<0.026	<0.041	<0.027	<0.057	<0.074	<0.064
PS-WR03-4-S	WR03	6/20/97	2	APCL	<0.015	<0.03	<0.048	<0.031	<0.067	<0.086	<0.074
PS-WR04-1-S	WR04	6/20/97	2	APCL	<0.019	<0.037	0.3	<0.038	<0.082	<0.11	<0.091

Explosives
Method 8330 (APCL)

Sample ID	Location ID	Sample Date	Lab Date	Dept	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	HMX
PS-WR04-2-S	WR04	6/20/97	2	APCL	<0.018	<0.034	<0.055	<0.036	<0.077	<0.099	<0.099
PS-WR04-3-S	WR04	6/20/97	2	APCL	<0.018	<0.035	<0.056	<0.036	<0.078	<0.1	<0.064
PS-WR04-4-S	WR04	6/20/97	2	APCL	0.2	<0.032	0.3	<0.033	<0.071	<0.091	0.72
PS-WR04-5-CS	WR04	7/7/97	0.5	APCL	<0.014	<0.026	<0.042	<0.027	<0.059	<0.076	<0.048
PS-WR05-1-S	WR05	6/20/97	2	APCL	<0.017	<0.033	<0.053	<0.034	<0.074	<0.095	<0.095
PS-WR05-2-S	WR05	6/20/97	2	APCL	<0.017	<0.033	<0.053	<0.035	<0.074	<0.096	<0.096
PS-WR05-3-S	WR05	6/20/97	2	APCL	<0.015	<0.029	0.2	<0.031	<0.066	<0.085	<0.073
PS-WR05-4-S	WR05	6/20/97	2	APCL	<0.015	<0.029	<0.046	<0.03	<0.064	<0.083	<0.071
PS-WR05-5-S	WR05	6/20/97	2	APCL	<0.019	<0.037	<0.059	<0.039	<0.083	<0.11	<0.092
PS-WR05-6-CS	WR05	7/7/97	0.5	APCL	<0.014	<0.026	<0.042	<0.027	<0.059	<0.075	<0.065
PS-WR06-13-S	WR06	5/28/97	1	APCL	<0	<0	1	<0	<0	<0	<0
PS-WR06-5-S	WR06	5/24/97	1	APCL	2.7	<0.68	7.6	<0.84	<0.88	<1.72	<1.24
PS-WR06-15-S	WR06	6/1/97	0.5	APCL	<0.084	<0.045	<0.075	<0.056	<0.06	<0.12	<0.084
PS-WR06-20-S	WR06	6/1/97	0.5	APCL	<0.089	<0.048	<0.08	<0.06	<0.064	<0.12	<0.089
PS-WR06-25-S	WR06	6/8/97	1	APCL	0.77	<0.033	<0.054	<0.035	<0.075	<0.096	<0.083
PS-WR06-28-S	WR06	6/20/97	2	APCL	<0.019	<0.037	<0.059	<0.039	<0.083	<0.11	<0.092
PS-WR06-29-S	WR06	6/20/97	2	APCL	<0.019	<0.037	<0.059	<0.038	<0.082	<0.11	<0.091
PS-WR06-30-S	WR06	6/20/97	2	APCL	<0.022	<0.042	<0.067	<0.043	<0.093	<0.12	<0.1
PS-WR06-31-S	WR06	6/20/97	2	APCL	<0.015	<0.029	<0.047	<0.031	<0.066	<0.085	<0.073
PS-WR06-32-S	WR06	6/20/97	2	APCL	<0.023	<0.045	<0.072	<0.047	<0.1	<0.13	<0.11
PS-WR06-33-CS	WR06	7/7/97	0.5	APCL	<0.014	<0.027	<0.043	<0.028	<0.06	<0.078	<0.067
PS-WR07-1-S	WR07	6/24/97	1	APCL	0.1	<0.028	<0.045	<0.029	<0.063	<0.081	<0.07
PS-WR07-2-S	WR07	6/24/97	1	APCL	0.07	<0.027	<0.043	<0.028	<0.061	<0.078	<0.067

Explosives
Method 8330 (APCL)

Sample ID	Location ID	Sample Date	Degr ₅	Lab	HMX							
					1,3,5-Tinitrobenzene	2,4,6-Tinitrobenzene	1,3-Dinitrobenzene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Nitrotoluene	3-Nitrotoluene	4-Nitrotoluene
PS-WR07-3-S		6/24/97	1	APCL	<0.016	<0.032	<0.051	<0.033	<0.071	<0.091	<0.091	0.2
PS-WR07-4-S		6/24/97	1	APCL	<0.015	<0.028	<0.045	<0.03	<0.064	<0.082	<0.082	<0.052
PS-WR07-5-CS		7/7/97	0.5	APCL	0.37	<0.026	<0.041	<0.027	<0.058	<0.075	<0.075	0.27
PS-WR08-1-S		6/24/97	1	APCL	<0.015	<0.029	<0.047	<0.031	<0.066	<0.085	<0.085	<0.054
PS-WR08-2-S		6/24/97	1	APCL	<0.015	<0.029	<0.046	<0.03	<0.065	<0.083	<0.083	<0.053
PS-WR08-3-S		6/24/97	1	APCL	<0.015	<0.028	<0.045	<0.03	<0.064	<0.082	<0.082	<0.052
PS-WR08-4-S		6/24/97	1	APCL	<0.016	<0.031	<0.049	<0.032	<0.069	<0.089	<0.089	<0.057
PS-WR08-5-S		6/24/97	1	APCL	<0.016	<0.031	<0.049	<0.032	<0.069	<0.089	<0.089	<0.057
PS-WR08-6-CS		7/7/97	0.5	APCL	<0.013	<0.026	<0.041	<0.027	<0.058	<0.074	<0.074	<0.047
PS-WR09-1-S		6/25/97	1	APCL	2.2	<0.03	<0.049	<0.032	<0.068	<0.088	<0.088	<0.056
PS-WR09-2-S		6/25/97	1	APCL	<0.016	<0.031	<0.049	<0.032	<0.069	<0.088	<0.088	<0.057
PS-WR09-3-S		6/25/97	1	APCL	<0.016	<0.03	<0.049	<0.032	<0.068	<0.087	<0.087	<0.056
PS-WR09-4-S		6/25/97	1	APCL	0.04	<0.03	0.2	<0.031	<0.067	<0.086	<0.086	0.63
PS-WR09-5-S		6/25/97	1	APCL	0.1	<0.03	1	<0.031	<0.067	<0.086	<0.086	<0.055
PS-WR09-6-CS		7/7/97	0.5	APCL	<0.014	<0.027	<0.042	<0.028	<0.059	<0.076	<0.076	0.1
PS-WR10-1-S		6/25/97	1	APCL	<0.016	<0.032	<0.051	<0.033	<0.071	<0.091	<0.091	<0.058
PS-WR10-2-S		6/25/97	1	APCL	<0.016	<0.031	<0.049	<0.032	<0.069	<0.089	<0.089	<0.057
PS-WR10-3-S		6/25/97	1	APCL	<0.015	<0.029	<0.047	<0.031	<0.066	<0.085	<0.085	<0.054
PS-WR10-4-S		6/25/97	1	APCL	<0.015	<0.028	<0.045	<0.03	<0.064	<0.082	<0.082	<0.052
PS-WR10-5-CS		7/7/97	0.5	APCL	<0.014	<0.028	<0.044	<0.029	<0.062	<0.08	<0.08	<0.051
PS-WR10-6-CS		7/7/97	0.5	APCL	<0.014	<0.028	<0.044	<0.029	<0.062	<0.079	<0.068	<0.051
PS-WR11-1-S		6/25/97	1	APCL	<0.015	<0.03	<0.048	<0.031	<0.067	<0.086	<0.086	<0.055
PS-WR11-2-S		6/25/97	1	APCL	0.08	<0.031	<0.049	<0.032	<0.069	<0.089	<0.089	<0.057

**Explosives
Method 8330 (APCL)**

Sample ID	Location ID	Sample Date	Depth ^a	Lab	HMX						
					1,3,5-Tinitrobenzene	2,4-Dinitrotoluene	2,4,6-Tinitrotoluene	2,6-Dinitrotoluene	2-Nitrotoluene	3-Nitrotoluene	4-Nitrotoluene
PS-WR11-3-S	WR11	6/25/97	1	APCL	0.1	<0.033	<0.052	<0.034	<0.073	<0.081	<0.094
PS-WR11-4-S	WR11	6/25/97	1	APCL	0.2	<0.029	<0.047	<0.03	<0.066	<0.084	<0.084
PS-WR11-5-S	WR11	6/25/97	1	APCL	0.2	<0.03	<0.048	<0.031	<0.068	<0.087	<0.087
PS-WR11-6-CS	WR11	7/10/97	0.5	APCL	<0.014	<0.027	<0.043	<0.028	<0.06	<0.077	<0.077
PS-WR12-4-S	WR12	6/3/97	0.5	APCL	<1.08	<0.6	1.1	<0.72	<0.76	<1.48	<1.08
PS-WR12-13-S	WR12	6/6/97	0.5	APCL	0.91	<0.043	1.3	<0.053	<0.057	<0.11	<0.079
PS-WR12-16-S	WR12	6/10/97	1	APCL	0.57	<0.032	4.8	<0.033	<0.072	<0.092	<0.08
PS-WR12-20-S	WR12	6/10/97	1	APCL	<0.016	<0.031	<0.05	<0.033	<0.07	<0.09	<0.078
PS-WR12-25-S	WR12	6/17/97	1	APCL	0.1	<0.03	4.2	<0.031	<0.068	<0.087	<0.075
PS-WR12-28-S	WR12	6/29/97	1	APCL	<0.017	<0.033	1.3	<0.034	<0.073	<0.094	<0.081
PS-WR12-29-S	WR12	6/29/97	1	APCL	0.3	<0.029	0.48	<0.03	<0.065	<0.084	<0.072
PS-WR12-30-S	WR12	6/29/97	1	APCL	<0.015	<0.029	0.36	<0.03	<0.064	<0.083	<0.071
PS-WR12-31-S	WR12	6/29/97	1	APCL	<0.015	<0.028	<0.046	<0.03	<0.064	<0.082	<0.071
PS-WR12-32-S	WR12	6/29/97	1	APCL	<0.015	<0.029	<0.047	<0.03	<0.066	<0.084	<0.073
PS-WR12-33-CS	WR12	7/10/97	0.5	APCL	<0.015	<0.028	<0.045	<0.029	<0.063	<0.083	<0.071
PS-WR13-1-S	WR13	6/29/97	1	APCL	<0.015	<0.028	0.39	<0.03	<0.064	<0.082	<0.082
PS-WR13-2-S	WR13	6/29/97	1	APCL	<0.015	<0.029	0.2	<0.03	<0.066	<0.084	<0.073
PS-WR13-3-S	WR13	6/29/97	1	APCL	<0.015	<0.029	0.98	<0.03	<0.064	<0.082	<0.071
PS-WR13-4-S	WR13	6/29/97	1	APCL	<0.015	<0.028	1	<0.03	<0.064	<0.082	<0.071
PS-WR13-5-S	WR13	6/29/97	1	APCL	0.2	<0.029	0.3	<0.03	<0.066	<0.084	<0.073
PS-WR13-6-CS	WR13	7/11/97	0.5	APCL	<0.016	<0.03	<0.048	<0.031	<0.068	<0.087	<0.075
PS-WR14-1-S	WR14	6/29/97	1	APCL	0.43	<0.029	1.5	<0.03	<0.065	<0.083	<0.072
PS-WR14-2-S	WR14	6/29/97	1	APCL	0.96	<0.029	4.9	<0.031	<0.066	<0.085	<0.073

**Explosives
Method 8330 (APCL)**

Sample ID	Location ID	Sample Date	D _{ep} _t	Lab	HMX					
					1,3,5-Tinitrobenzene	1,3-Dinitrobenzene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2,4,6-Tinitrotoluene	4-Nitrotoluene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
PS-WR14-3-S	WR14	6/29/97	1	APCL	0.49	<0.03	3.3	<0.031	<0.067	<0.086
PS-WR14-4-S	WR14	6/29/97	1	APCL	<0.385	<0.75	<0.75	<1.65	<1.85	<2.15
PS-WR14-5-CS	WR14	7/11/97	0.5	APCL	<0.013	<0.026	<0.041	<0.027	<0.058	<0.074
PS-WR15-1-S	WR15	6/29/97	1	APCL	<0.015	<0.03	1.2	<0.031	<0.067	<0.086
PS-WR15-2-S	WR15	6/29/97	1	APCL	<0.016	<0.031	0.2	<0.032	<0.069	<0.089
PS-WR15-3-S	WR15	6/29/97	1	APCL	<0.015	<0.03	0.3	<0.031	<0.067	<0.086
PS-WR15-4-S	WR15	6/29/97	1	APCL	0.06	<0.031	0.3	<0.032	<0.07	<0.089
PS-WR15-5-S	WR15	6/29/97	1	APCL	<0.016	<0.031	2.9	<0.032	<0.069	<0.089
PS-WR15-6-CS	WR15	7/11/97	0.5	APCL	<0.015	<0.029	<0.046	<0.03	<0.064	<0.083
PS-WR16-1-S	WR16	6/30/97	1	APCL	<0.015	<0.029	<0.046	<0.03	<0.064	<0.082
PS-WR16-2-S	WR16	6/30/97	1	APCL	<0.015	<0.029	0.2	<0.03	<0.065	<0.083
PS-WR16-3-S	WR16	6/30/97	1	APCL	0.09	<0.03	0.2	<0.031	<0.066	<0.085
PS-WR16-4-S	WR16	6/30/97	1	APCL	<0.015	<0.029	5.8	<0.03	<0.064	<0.083
PS-WR16-5-CS	WR16	7/11/97	0.5	APCL	<0.015	<0.03	<0.047	<0.031	<0.066	<0.085
PS-WR17-4-S	WR17	6/4/97	0.5	APCL	2.7	<1.05	89.8	<1.3	<1.4	<2.7
PS-WR17-13-S	WR17	6/8/97	1	APCL	<0.017	<0.032	3.8	<0.034	<0.072	<0.093
PS-WR17-16-S	WR17	6/12/97	0.5	APCL	<0.016	<0.031	1.2	<0.032	<0.069	<0.088
PS-WR17-20-S	WR17	6/12/97	0.5	APCL	0.4	<0.029	0.59	<0.03	<0.065	<0.083
PS-WR17-28-S	WR17	7/1/97	1	APCL	0.31	<0.029	1.1	NA	<0.065	<0.083
PS-WR17-29-S	WR17	7/1/97	1	APCL	0.3	<0.029	1.5	NA	<0.065	<0.083
PS-WR17-30-S	WR17	7/1/97	1	APCL	<0.015	<0.028	0.3	NA	<0.064	<0.082
PS-WR17-31-S	WR17	7/1/97	1	APCL	0.33	<0.029	2.2	NA	<0.064	<0.082
PS-WR17-32-S	WR17	7/1/97	1	APCL	0.3	<0.028	0.96	<0.029	<0.063	<0.082

Explosives
Method 8330 (APCL)

Sample ID	Location ID	Sample Date	D _{eff} μg	HMX mg/kg	2,4,6-Tnitrotoluene mg/kg	1,3,5-Tnitrobenzene mg/kg	2,4-Dinitrotoluene mg/kg	2,6-Dinitrotoluene mg/kg	3-Nitrotoluene mg/kg	4-Nitrotoluene mg/kg	HMX mg/kg
PS-WR17-33-CS	WR17	7/11/97	0.5	APCL <0.014	<0.026	<0.042	<0.027	<0.059	<0.076	<0.048	<0.053
PS-WR18-1-S	WR18	7/1/97	1	APCL 0.1	<0.029	<0.046	<0.03	<0.065	<0.072	<0.084	<0.085
PS-WR18-2-S	WR18	7/1/97	1	APCL <0.015	<0.029	0.2	<0.031	<0.066	<0.073	<0.085	0.35
PS-WR18-3-S	WR18	7/1/97	1	APCL 0.1	<0.029	0.45	<0.03	<0.064	<0.082	<0.071	<0.082
PS-WR18-4-S	WR18	7/1/97	1	APCL 0.73	<0.027	3.8	<0.028	<0.061	<0.079	<0.068	<0.079
PS-WR18-5-S	WR18	7/1/97	1	APCL <0.014	<0.027	3	<0.028	<0.061	<0.079	<0.068	<0.079
PS-WR18-6-CS	WR18	7/1/97	0.5	APCL <0.014	<0.027	<0.043	<0.028	<0.06	<0.077	<0.066	<0.077
PS-WR19-1-S	WR19	7/2/97	1	APCL 0.2	<0.051	1.3	<0.063	<0.068	<0.13	<0.094	<0.11
PS-WR19-2-S	WR19	7/2/97	1	APCL 0.2	<0.052	0.3	<0.064	<0.069	<0.13	<0.096	<0.11
PS-WR19-3-S	WR19	7/2/97	1	APCL <0.093	<0.051	0.54	<0.063	<0.067	<0.13	<0.093	<0.11
PS-WR19-4-S	WR19	7/2/97	1	APCL 0.45	<0.047	2.2	<0.059	<0.063	<0.12	<0.088	<0.1
PS-WR19-5-S	WR19	7/2/97	1	APCL 2	<1.25	133	<1.55	<1.65	<3.2	<2.3	<2.7
PS-WR19-6-CS	WR19	7/14/97	0.5	APCL <0.014	<0.027	<0.042	<0.028	<0.059	<0.076	<0.066	<0.076
PS-WR20-1-S	WR20	7/7/97	0.5	APCL 0.1	<0.028	0.5	<0.029	<0.062	<0.08	<0.069	<0.08
PS-WR20-2-S	WR20	7/7/97	0.5	APCL <0.014	<0.028	0.2	<0.029	<0.062	<0.079	<0.068	<0.079
PS-WR20-3-S	WR20	7/7/97	0.5	APCL <0.014	<0.027	<0.043	<0.028	<0.061	<0.078	<0.067	<0.078
PS-WR20-4-S	WR20	7/7/97	0.5	APCL <0.014	<0.027	0.34	<0.029	<0.061	<0.079	<0.068	<0.079
PS-WR20-5-S	WR21	7/7/97	0.5	APCL 0.3	<0.027	2.6	<0.028	<0.061	<0.078	<0.067	<0.078
PS-WR20-6-S	WR21	7/7/97	0.5	APCL 0.2	<0.027	3.9	<0.028	<0.061	<0.078	<0.067	<0.078
PS-WR20-7-CS	WR21	7/14/97	0.5	APCL <0.013	<0.026	1.2	<0.027	<0.057	<0.074	<0.063	<0.074
PS-WR21-1-S	WR21	7/7/97	0.5	APCL <0.014	<0.028	1.5	<0.029	<0.062	<0.08	<0.069	<0.08
PS-WR21-2-S	WR21	7/7/97	0.5	APCL 0.1	<0.027	0.63	<0.029	<0.062	<0.079	<0.068	<0.079
PS-WR21-3-S	WR21	7/7/97	0.5	APCL <0.014	<0.027	0.69	<0.029	<0.061	<0.079	<0.068	<0.079

Explosives
Method 8330 (APCL)

Sample ID	Location ID	Sample Date	Depth	mg/kg	HMX					
					1,3,5-Trinitrobenzene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2,4,6-Trinitrotoluene	1,3-Dinitrobenzene	4-Nitrotoluene
PS-WR21-4-CS		7/14/97	0.5	APCL <0.014	<0.026	<0.042	<0.027	<0.059	<0.075	<0.048
PS-WR22-1-S		6/9/97	1	APCL <0.014	<0.027	<0.043	<0.028	<0.061	<0.067	<0.05
PS-WR22-2-S		6/9/97	1	APCL <0.016	<0.03	<0.048	<0.031	<0.067	<0.087	<0.055
PS-WR22-3-S		6/9/97	1	APCL <0.014	<0.027	2.2	<0.029	<0.062	<0.079	<0.051
PS-WR22-4-S		6/9/97	1	APCL <0.014	<0.028	3.9	<0.029	<0.062	<0.08	<0.051
PS-WR22-5-S		6/9/97	1	APCL <0.015	<0.029	<0.047	<0.031	<0.066	<0.085	<0.054
PS-WR22-6-S		6/9/97	1	APCL <0.015	<0.028	<0.045	<0.029	<0.063	<0.081	<0.052
PS-WR22-7-S		6/9/97	1	APCL <0.015	<0.029	<0.046	<0.03	<0.065	<0.072	<0.053
PS-WR22-8-S		6/13/97	1	APCL 0.53	<0.031	3.1	<0.033	<0.07	<0.078	<0.058
PS-WR22-9-S		6/13/97	1	APCL <0.021	<0.041	<0.065	<0.042	<0.091	<0.12	<0.075
PS-WR22-10-S		6/13/97	1	APCL <0.02	<0.039	4.5	<0.041	<0.088	<0.11	<0.072
PS-WR22-11-S		6/13/97	1	APCL <0.017	<0.032	7.61	<0.033	<0.071	<0.079	<0.092
PS-WR22-12-S		6/13/97	1	APCL <0.019	1.1	0.65	<0.037	<0.08	<0.1	<0.066
PS-WR22-13-S		6/13/97	1	APCL <0.019	<0.036	1.8	<0.037	<0.08	<0.1	<0.066
PS-WR22-14-S		6/13/97	1	APCL <0.018	<0.035	1.5	<0.037	<0.079	<0.1	<0.065
PS-WR22-15-S		6/17/97	1	APCL 0.2	<0.029	2	<0.03	<0.064	<0.082	<0.082
PS-WR22-16-S		6/17/97	1	APCL 0.2	<0.029	1.7	<0.031	<0.066	<0.085	<0.085
PS-WR22-17-S		6/17/97	1	APCL <0.016	<0.031	3.6	<0.033	<0.07	<0.078	<0.058
PS-WR22-18-S		6/17/97	1	APCL <0.015	<0.029	2.3	<0.03	<0.065	<0.083	0.67
PS-WR22-19-S		6/17/97	1	APCL <0.016	<0.03	3.4	<0.031	<0.067	<0.074	<0.055
PS-WR22-20-S		6/17/97	1	APCL <0.015	<0.03	1.8	<0.031	<0.066	<0.085	<0.055
PS-WR22-21-S		6/17/97	1	APCL 0.09	<0.03	1.3	<0.031	<0.066	<0.085	<0.054
PS-WR22-22-S		6/17/97	1	APCL <0.015	<0.028	<0.045	<0.029	<0.063	<0.081	<0.052

Explosives
Method 8330 (APCL)

Sample ID	Location ID	Sample Date	Dpt#	Lab#	HMX						
					1,3,5-Tinitrobenzene	1,3-Dinitrobenzene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Nitrotoluene	3-Nitrotoluene	4-Nitrotoluene
PS-WR22-22A-S	WR22	6/24/97	1	APCL	<0.015	0.48	<0.046	<0.03	<0.064	<0.082	<0.082
PS-WR22-23-S	WR22	6/24/97	1	APCL	<0.015	0.2	<0.045	<0.03	<0.064	<0.082	<0.082
PS-WR22-24-S	WR22	6/24/97	1	APCL	<0.015	<0.028	<0.046	<0.03	<0.064	<0.082	<0.082
PS-WR22-25-S	WR22	6/24/97	1	APCL	<0.016	<0.03	<0.048	<0.031	<0.067	<0.086	<0.086
PS-WR22-26-S	WR22	6/24/97	1	APCL	<0.016	<0.03	<0.049	<0.032	<0.068	<0.087	<0.087
PS-WR22-27-S	WR22	6/24/97	1	APCL	<0.015	0.61	3.3	<0.029	<0.063	<0.081	<0.081
PS-WR22-28-S	WR22	7/7/97	0.5	APCL	<0.014	<0.027	<0.043	<0.028	<0.06	<0.077	<0.077
PS-WR22-29-S	WR22	7/7/97	0.5	APCL	<0.014	<0.027	<0.043	<0.028	<0.061	<0.078	<0.078
PS-WR22-30-S	WR22	7/7/97	0.5	APCL	<0.014	<0.027	<0.044	<0.028	<0.061	<0.079	<0.079
PS-WR22-31-S	WR22	7/7/97	0.5	APCL	<0.014	<0.028	<0.044	<0.029	<0.062	<0.08	<0.08
PS-WR22-32-S	WR22	7/7/97	0.5	APCL	<0.014	<0.027	<0.043	<0.028	<0.06	<0.078	<0.078
PS-WR22-33-S	WR22	7/7/97	0.5	APCL	<0.014	<0.027	<0.043	<0.028	<0.061	<0.078	<0.078
PS-WR22-34-CS	WR22	7/14/97	0.5	APCL	<0.014	<0.027	<0.043	<0.028	<0.06	<0.077	<0.077
PS-WR23-1-S	WR23	7/7/97	0.5	APCL	<0.014	<0.028	<0.044	<0.029	<0.062	<0.079	<0.079
PS-WR23-2-S	WR23	7/7/97	0.5	APCL	<0.014	<0.028	<0.044	<0.029	<0.062	<0.079	<0.079
PS-WR23-3-S	WR23	7/7/97	0.5	APCL	<0.014	<0.027	<0.043	<0.028	<0.061	<0.079	<0.079
PS-WR23-4-S	WR23	7/7/97	0.5	APCL	<0.014	<0.027	<0.043	<0.028	<0.061	<0.078	<0.078
PS-WR23-5-S	WR23	7/7/97	0.5	APCL	<0.014	<0.027	<0.044	<0.028	<0.061	<0.078	<0.078
PS-WR23-6-S	WR23	7/7/97	0.5	APCL	<0.014	<0.027	<0.043	<0.028	<0.061	<0.077	<0.077
PS-WR23-7-CS	WR23	7/15/97	0.5	APCL	<0.014	<0.027	<0.043	<0.028	<0.059	<0.076	<0.076
PS-WR23-8-CS	WR23	7/15/97	0.5	APCL	<0.014	<0.027	<0.042	<0.028	<0.059	<0.076	<0.076
PS-WR24-1-S	WR24	7/7/97	0.5	APCL	<0.014	<0.028	<0.044	<0.029	<0.062	<0.079	<0.079
PS-WR24-2-S	WR24	7/7/97	0.5	APCL	<0.014	<0.028	<0.044	<0.029	<0.062	<0.08	<0.08

**Explosives
Method 8330 (APCL)**

Sample ID	Location ID	Sample Date	D _{eff}	Lab	HMX						
					1,3,5-Trinitrobenzene	1,3-Dinitrobenzene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Nitrotoluene	3-Nitrotoluene	4-Nitrotoluene
PS-WR24-3-S	WR24	7/7/97	0.5	APCL	<0.014	<0.027	<0.044	<0.028	<0.061	<0.079	<0.079
PS-WR24-4-S	WR24	7/7/97	0.5	APCL	<0.014	<0.028	<0.044	<0.029	<0.062	<0.079	<0.079
PS-WR24-5-S	WR24	7/7/97	0.5	APCL	<0.014	<0.027	<0.044	<0.028	<0.061	<0.079	<0.079
PS-WR24-6-S	WR24	7/7/97	0.5	APCL	<0.014	<0.027	<0.043	<0.028	<0.06	<0.077	<0.077
PS-WR24-7-CS	WR24	7/15/97	0.5	APCL	<0.014	<0.026	<0.042	<0.027	<0.059	<0.076	<0.076
Analyses					189	187	189	185	189	189	189
Detections					54	6	87	0	0	0	0
Minimum Concentration					0.04	0.07	0.2	0	0	0	0
Maximum Concentration					7.8	1.1	133	0	0	0	0
HWAD - PCG					4	8	233	2.6	80	800	800
HWAD - PCG Hits					2	0	0	0	0	0	0
Notes:											
NA = Not analyzed											
NE = Not established											

Notes:
 NA = Not analyzed
 NE = Not established

Explosives
Method 8330 (APCL)

Sample ID	Location ID	Sample Date	D _{ppg}	D _{ab}	RDX	Tetryl	Nitrobenzene		2-Amino-4,6-dinitrotoluene		4-Amino-2,6-dinitrotoluene	
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
PS-WR01-6-S		WR01	5/24/97	1	APCL	<0.28	13.3	<0.26	7.3	20.2		
PS-WR01-14-S		WR01	5/27/97	2	APCL	<1.12	61.7	<1	<0.72	<1.16		
PS-WR01-18-S		WR01	5/31/97	1	APCL	<1.24	3.3	<1.12	NA	NA		
PS-WR01-22-S		WR01	6/7/97	1	APCL	<0.058	5.4	<0.047	<0.061	<0.083		
PS-WR01-25-S		WR01	6/7/97	1	APCL	<1	54.9	<0.8	<1.04	<1.44		
PS-WR01-28-S		WR01	6/19/97	1.5	APCL	<0.07	4.9	<0.063	<0.047	<0.075		
PS-WR01-29-S		WR01	6/19/97	1.5	APCL	<0.071	4.9	<0.063	<0.047	<0.076		
PS-WR01-30-S		WR01	6/19/97	1.5	APCL	<0.074	4.7	<0.066	<0.049	<0.079		
PS-WR01-31-S		WR01	6/19/97	1.5	APCL	<0.074	25.1	<0.065	0.42	<0.078		
PS-WR01-32-S		WR01	6/19/97	1.5	APCL	<0.073	4.1	<0.065	<0.049	<0.078		
PS-WR01-33-S		WR01	6/19/97	1.5	APCL	<0.075	4	<0.067	<0.05	<0.08		
PS-WR02-1-S		WR02	6/19/97	1.5	APCL	<0.085	<0.058	<0.076	<0.057	<0.091		
PS-WR02-2-S		WR02	6/19/97	1.5	APCL	<0.084	2.8	<0.075	<0.056	<0.09		
PS-WR02-3-S		WR02	6/19/97	1.5	APCL	<0.076	1.1	<0.067	<0.05	<0.08		
PS-WR02-4-S		WR02	6/19/97	1.5	APCL	<0.087	<0.059	<0.077	<0.058	<0.092		
PS-WR02-5-S		WR02	6/19/97	1.5	APCL	<0.075	3.7	<0.067	<0.05	<0.08		
PS-WR02-6-CS		WR02	7/7/97	0.5	APCL	<0.058	17.6	<0.047	<0.061	<0.083		
PS-WR03-1-S		WR03	6/20/97	2	APCL	<0.067	0.82	<0.055	<0.07	<0.096		
PS-WR03-2-S		WR03	6/20/97	2	APCL	<0.08	1.8	<0.066	<0.085	<0.12		
PS-WR03-3-S		WR03	6/20/97	2	APCL	<0.079	1.3	<0.064	<0.083	<0.11		
PS-WR03-4-CS		WR03	7/7/97	0.5	APCL	<0.056	0.3	<0.046	<0.059	<0.081		
PS-WR03-4-S		WR03	6/20/97	2	APCL	<0.066	0.2	<0.054	<0.069	<0.094		
PS-WR04-1-S		WR04	6/20/97	2	APCL	<0.081	1.6	<0.066	<0.085	<0.12		

**Explosives
Method 8330 (APCL)**

Sample ID	Location ID	Sample Date	mg/kg	Nitrobenzene		mg/kg	mg/kg	mg/kg
				RDX	Tetryl			
2-Amino-4,6-dinitrotoluene								
PS-WR04-2-S	WR04	6/20/97	2	APCL	<0.076	1.2	<0.062	<0.08
PS-WR04-3-S	WR04	6/20/97	2	APCL	<0.077	1.3	<0.063	<0.081
PS-WR04-4-S	WR04	6/20/97	2	APCL	<0.07	1.5	<0.057	<0.073
PS-WR04-5-CS	WR04	7/7/97	0.5	APCL	<0.058	0.73	<0.047	<0.061
PS-WR05-1-S	WR05	6/20/97	2	APCL	<0.072	1.9	<0.059	<0.076
PS-WR05-2-S	WR05	6/20/97	2	APCL	<0.073	2.1	<0.06	<0.077
PS-WR05-3-S	WR05	6/20/97	2	APCL	<0.065	0.3	<0.053	<0.068
PS-WR05-4-S	WR05	6/20/97	2	APCL	<0.063	0.6	<0.052	<0.067
PS-WR05-5-S	WR05	6/20/97	2	APCL	<0.081	1.4	<0.067	<0.086
PS-WR05-6-CS	WR05	7/7/97	0.5	APCL	<0.058	0.3	<0.047	<0.061
PS-WR06-13-S	WR06	5/28/97	1	APCL	<0	7.1	<0	NA
PS-WR06-5-S	WR06	5/24/97	1	APCL	<1.28	85.4	<1.12	<0.84
PS-WR06-15-S	WR06	6/11/97	0.5	APCL	<0.086	0.55	<0.077	NA
PS-WR06-20-S	WR06	6/11/97	0.5	APCL	<0.092	<0.063	<0.082	NA
PS-WR06-25-S	WR06	6/8/97	1	APCL	<0.074	<0.067	<0.06	<0.078
PS-WR06-28-S	WR06	6/20/97	2	APCL	<0.082	2	<0.067	<0.086
PS-WR06-29-S	WR06	6/20/97	2	APCL	<0.081	1.4	<0.066	<0.085
PS-WR06-30-S	WR06	6/20/97	2	APCL	<0.092	1.3	<0.075	<0.097
PS-WR06-31-S	WR06	6/20/97	2	APCL	<0.065	<0.059	<0.053	<0.068
PS-WR06-32-S	WR06	6/20/97	2	APCL	<0.098	1.7	<0.081	<0.1
PS-WR06-33-CS	WR06	7/7/97	0.5	APCL	<0.059	0.3	<0.049	<0.063
PS-WR07-1-S	WR07	6/24/97	1	APCL	<0.062	1.1	<0.051	<0.065
PS-WR07-2-S	WR07	6/24/97	1	APCL	<0.06	0.3	<0.049	<0.063

Explosives
Method 8330 (APCL)

Sample ID	Location ID	Sample Date	D ₂ O	T ₂ O	RDX		Tetryl		Nitrobenzene		2-Amino-4,6-dinitrotoluene		4-Amino-2,6-dinitrotoluene	
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
PS-WR07-3-S		WR07	6/24/97	1	APCL <0.069	2.4	<0.057	<0.073	<0.1					
PS-WR07-4-S		WR07	6/24/97	1	APCL <0.062	<0.057	<0.051	<0.066	<0.09					
PS-WR07-5-CS		WR07	7/7/97	0.5	APCL <0.057	1	<0.047	<0.06	<0.082					
PS-WR08-1-S		WR08	6/24/97	1	APCL <0.065	<0.059	<0.053	<0.068	<0.093					
PS-WR08-2-S		WR08	6/24/97	1	APCL <0.064	<0.058	<0.052	<0.067	<0.092					
PS-WR08-3-S		WR08	6/24/97	1	APCL <0.062	<0.057	<0.051	<0.066	<0.09					
PS-WR08-4-S		WR08	6/24/97	1	APCL <0.068	<0.062	<0.055	<0.072	<0.097					
PS-WR08-5-S		WR08	6/24/97	1	APCL <0.068	<0.062	<0.055	<0.071	<0.097					
PS-WR08-6-CS		WR08	7/7/97	0.5	APCL <0.057	0.74	<0.046	<0.06	<0.081					
PS-WR09-1-S		WR09	6/25/97	1	APCL <0.067	<0.061	<0.055	<0.071	<0.096					
PS-WR09-2-S		WR09	6/25/97	1	APCL <0.068	<0.061	<0.055	<0.071	<0.097					
PS-WR09-3-S		WR09	6/25/97	1	APCL <0.067	<0.061	<0.055	<0.07	<0.096					
PS-WR09-4-S		WR09	6/25/97	1	APCL <0.066	0.3	<0.054	<0.069	<0.094					
PS-WR09-5-S		WR09	6/25/97	1	APCL <0.066	0.46	<0.054	<0.069	<0.094					
PS-WR09-6-CS		WR09	7/7/97	0.5	APCL <0.058	0.2	<0.048	<0.062	<0.084					
PS-WR10-1-S		WR10	6/25/97	1	APCL <0.07	<0.063	<0.057	<0.073	<0.1					
PS-WR10-2-S		WR10	6/25/97	1	APCL <0.068	<0.062	<0.055	<0.072	<0.097					
PS-WR10-3-S		WR10	6/25/97	1	APCL <0.065	<0.059	<0.053	<0.068	<0.093					
PS-WR10-4-S		WR10	6/25/97	1	APCL <0.062	<0.057	<0.051	<0.066	<0.09					
PS-WR10-5-CS		WR10	7/7/97	0.5	APCL <0.061	0.2	<0.05	<0.065	<0.088					
PS-WR10-6-CS		WR10	7/7/97	0.5	APCL <0.061	0.2	<0.05	<0.064	<0.087					
PS-WR11-1-S		WR11	6/25/97	1	APCL <0.065	<0.059	<0.054	<0.069	<0.094					
PS-WR11-2-S		WR11	6/25/97	1	APCL <0.068	0.3	<0.055	<0.071	<0.097					

Explosives
Method 83330 (APCL)

Sample ID	Location ID	Sample Date	D ₅	D ₆	Nitrobenzene	RDX		Tetryl		mg/kg	mg/kg	mg/kg	mg/kg
						mg/kg	mg/kg	mg/kg	mg/kg				
4-Amino-2,6-dinitrotoluene													
PS-WR11-3-S	WR11	6/25/97	1	APCL	<0.072	<0.066	<0.059	<0.076	<0.1				
PS-WR11-4-S	WR11	6/25/97	1	APCL	<0.064	<0.059	<0.053	<0.068	<0.093				
PS-WR11-5-S	WR11	6/25/97	1	APCL	<0.067	<0.061	<0.054	<0.07	<0.096				
PS-WR11-6-CS	WR11	7/10/97	0.5	APCL	<0.059	<0.053	<0.048	<0.062	<0.084				
PS-WR12-4-S	WR12	6/3/97	0.5	APCL	<1.12	2.7	<1	NA	NA				
PS-WR12-13-S	WR12	6/6/97	0.5	APCL	<0.081	8.95	<0.072	NA	NA				
PS-WR12-16-S	WR12	6/10/97	1	APCL	<0.071	11.7	<0.058	<0.074	<0.1				
PS-WR12-20-S	WR12	6/10/97	1	APCL	<0.069	<0.063	<0.056	<0.073	<0.099				
PS-WR12-25-S	WR12	6/17/97	1	APCL	<0.066	2	<0.054	0.44	<0.095				
PS-WR12-28-S	WR12	6/29/97	1	APCL	<0.072	3.8	<0.059	<0.075	<0.1				
PS-WR12-29-S	WR12	6/29/97	1	APCL	<0.064	2.3	<0.052	<0.068	<0.092				
PS-WR12-30-S	WR12	6/29/97	1	APCL	<0.063	2.2	<0.052	<0.067	<0.091				
PS-WR12-31-S	WR12	6/29/97	1	APCL	<0.063	<0.057	<0.051	<0.066	<0.09				
PS-WR12-32-S	WR12	6/29/97	1	APCL	<0.064	0.41	<0.053	<0.068	<0.093				
PS-WR12-33-CS	WR12	7/10/97	0.5	APCL	<0.061	<0.056	<0.05	NA	<0.088				
PS-WR13-1-S	WR13	6/29/97	1	APCL	<0.063	2.1	<0.051	<0.066	<0.09				
PS-WR13-2-S	WR13	6/29/97	1	APCL	<0.063	2.9	<0.052	<0.067	<0.091				
PS-WR13-3-S	WR13	6/29/97	1	APCL	<0.063	2.5	<0.052	<0.066	<0.09				
PS-WR13-4-S	WR13	6/29/97	1	APCL	<0.063	4.9	<0.051	<0.066	<0.09				
PS-WR13-5-S	WR13	6/29/97	1	APCL	<0.064	<0.059	<0.053	<0.068	<0.093				
PS-WR13-6-CS	WR13	7/11/97	0.5	APCL	<0.066	<0.06	<0.054	NA	<0.095				
PS-WR14-1-S	WR14	6/29/97	1	APCL	<0.063	7.38	<0.052	<0.067	<0.091				
PS-WR14-2-S	WR14	6/29/97	1	APCL	<0.065	7.56	<0.053	<0.068	<0.093				

Explosives
Method 8330 (APCL)

Sample ID	Location ID	Sample Date	D _{ppf}	L _B	Nitrobenzene	Tetryl	DX	4-Amino-2,6-dinitrotoluene		
								mg/kg	mg/kg	mg/kg
PS-WR14-3-S		WR14	6/29/97	1	APCL <0.066	3.7	<0.054	<0.069	<0.094	
PS-WR14-4-S		WR14	6/29/97	1	APCL <1.65	7.5	<1.35	<1.75	<2.35	
PS-WR14-5-CS		WR14	7/11/97	0.5	APCL <0.057	<0.052	<0.046	NA	<0.081	
PS-WR15-1-S		WR15	6/29/97	1	APCL <0.066	2.5	<0.054	<0.069	<0.094	
PS-WR15-2-S		WR15	6/29/97	1	APCL <0.068	0.55	<0.055	<0.071	<0.097	
PS-WR15-3-S		WR15	6/29/97	1	APCL <0.065	1.4	<0.054	<0.069	<0.094	
PS-WR15-4-S		WR15	6/29/97	1	APCL <0.068	<0.062	<0.056	<0.072	<0.098	
PS-WR15-5-S		WR15	6/29/97	1	APCL <0.068	0.94	<0.055	<0.072	<0.097	
PS-WR15-6-CS		WR15	7/11/97	0.5	APCL <0.063	<0.057	<0.052	NA	<0.091	
PS-WR16-1-S		WR16	6/30/97	1	APCL <0.063	0.97	<0.051	<0.066	<0.09	
PS-WR16-2-S		WR16	6/30/97	1	APCL <0.064	<0.058	<0.052	<0.067	<0.092	
PS-WR16-3-S		WR16	6/30/97	1	APCL <0.065	0.3	<0.053	<0.069	<0.093	
PS-WR16-4-S		WR16	6/30/97	1	APCL <0.063	3.7	<0.052	<0.067	<0.091	
PS-WR16-5-CS		WR16	7/11/97	0.5	APCL <0.065	<0.059	<0.053	NA	<0.093	
PS-WR17-4-S		WR17	6/4/97	0.5	APCL <2	81.6	<1.8	NA	NA	
PS-WR17-13-S		WR17	6/8/97	1	APCL <0.071	2	<0.058	<0.075	<0.1	
PS-WR17-16-S		WR17	6/12/97	0.5	APCL <0.068	5.5	<0.055	<0.071	<0.097	
PS-WR17-20-S		WR17	6/12/97	0.5	APCL <0.064	0.46	<0.052	<0.067	<0.091	
PS-WR17-28-S		WR17	7/1/97	1	APCL <0.063	4.7	<0.052	<0.067	<0.091	
PS-WR17-29-S		WR17	7/1/97	1	APCL <0.064	5	<0.052	<0.067	<0.092	
PS-WR17-30-S		WR17	7/1/97	1	APCL <0.062	0.66	<0.051	<0.066	<0.09	
PS-WR17-31-S		WR17	7/1/97	1	APCL <0.063	8.7	<0.051	0.46	0.84	
PS-WR17-32-S		WR17	7/1/97	1	APCL <0.062	4.4	<0.051	0.31	1.2	

Explosives
Method 8330 (APCL)

Sample ID	Location ID	Sample Date	Σ	T _{etV}	Nitrobenzene		2-Amino-4,6-dinitrotoluene		4-Amino-2,6-dinitrotoluene	
					DX	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
PS-WR17-33-CS	WR17	7/11/97	0.5	APCL	<0.058	<0.053	<0.047	NA	<0.083	
PS-WR18-1-S	WR18	7/1/97	1	APCL	<0.064	<0.058	<0.052	<0.067	<0.092	
PS-WR18-2-S	WR18	7/1/97	1	APCL	<0.065	0.45	<0.053	<0.068	<0.093	
PS-WR18-3-S	WR18	7/1/97	1	APCL	<0.063	1.9	<0.051	0.66	<0.09	
PS-WR18-4-S	WR18	7/1/97	1	APCL	<0.06	4.7	<0.049	0.72	1.3	
PS-WR18-5-S	WR18	7/1/97	1	APCL	<0.06	17.5	<0.049	0.7	1.1	
PS-WR18-6-CS	WR18	7/11/97	0.5	APCL	<0.059	<0.053	<0.048	NA	<0.084	
PS-WR19-1-S	WR19	7/2/97	1	APCL	<0.097	3.1	<0.086	<0.065	<0.1	
PS-WR19-2-S	WR19	7/2/97	1	APCL	<0.099	<0.068	<0.088	<0.066	<0.11	
PS-WR19-3-S	WR19	7/2/97	1	APCL	<0.097	0.97	<0.086	<0.064	<0.1	
PS-WR19-4-S	WR19	7/2/97	1	APCL	<0.091	1.4	<0.08	<0.06	0.81	
PS-WR19-5-S	WR19	7/2/97	1	APCL	<2.35	41.9	<2.1	14	11	
PS-WR19-6-CS	WR19	7/14/97	0.5	APCL	<0.058	<0.053	<0.048	NA	<0.084	
PS-WR20-1-S	WR20	7/7/97	0.5	APCL	<0.061	5.83	<0.05	<0.064	<0.088	
PS-WR20-2-S	WR20	7/7/97	0.5	APCL	<0.061	3.2	<0.05	<0.064	<0.087	
PS-WR20-3-S	WR20	7/7/97	0.5	APCL	<0.06	1.9	<0.049	<0.063	<0.086	
PS-WR20-4-S	WR20	7/7/97	0.5	APCL	<0.06	15.2	<0.049	<0.064	<0.087	
PS-WR20-5-S	WR20	7/7/97	0.5	APCL	<0.059	8.6	<0.049	<0.063	<0.085	
PS-WR20-6-S	WR20	7/7/97	0.5	APCL	<0.059	4.4	<0.049	<0.063	<0.085	
PS-WR20-7-CS	WR20	7/14/97	0.5	APCL	<0.056	0.2	<0.046	NA	<0.081	
PS-WR21-1-S	WR21	7/7/97	0.5	APCL	<0.061	4.8	<0.05	<0.064	<0.087	
PS-WR21-2-S	WR21	7/7/97	0.5	APCL	<0.06	4.4	<0.049	<0.064	<0.087	
PS-WR21-3-S	WR21	7/7/97	0.5	APCL	<0.06	1.2	<0.049	<0.064	<0.087	

Explosives
Method 8330 (APCL)

Sample ID	Location ID	Sample Date	D ₅₀ μm	RDX	Nitrobenzene	Tetryl	2-Amino-4,6-dinitrotoluene		4-Amino-2,6-dinitrotoluene	
							mg/kg	mg/kg	mg/kg	mg/kg
PS-WR214-CS		7/14/97	0.5	APCL	<0.058	<0.052	<0.047	<0.083		
PS-WR22-1-S	WR22	6/9/97	1	APCL	<0.059	<0.054	<0.049	<0.063	<0.085	
PS-WR22-2-S	WR22	6/9/97	1	APCL	<0.066	<0.06	<0.054	<0.07	<0.095	
PS-WR22-3-S	WR22	6/9/97	1	APCL	<0.06	<0.055	<0.049	<0.064	<0.087	
PS-WR22-4-S	WR22	6/9/97	1	APCL	<0.061	<0.056	<0.05	<0.065	<0.088	
PS-WR22-5-S	WR22	6/9/97	1	APCL	<0.065	1.3	<0.053	<0.068	<0.093	
PS-WR22-6-S	WR22	6/9/97	1	APCL	<0.062	1.2	<0.051	<0.065	<0.089	
PS-WR22-7-S	WR22	6/9/97	1	APCL	<0.064	<0.058	<0.052	<0.067	<0.091	
PS-WR22-8-S	WR22	6/13/97	1	APCL	<0.069	1.3	<0.056	<0.073	<0.099	
PS-WR22-9-S	WR22	6/13/97	1	APCL	<0.089	<0.081	<0.073	<0.094	<0.13	
PS-WR22-10-S	WR22	6/13/97	1	APCL	<0.086	<0.078	<0.071	<0.091	<0.12	
PS-WR22-11-S	WR22	6/13/97	1	APCL	<0.07	<0.064	<0.057	<0.074	<0.1	
PS-WR22-12-S	WR22	6/13/97	1	APCL	<0.079	<0.072	<0.065	<0.083	<0.11	
PS-WR22-13-S	WR22	6/13/97	1	APCL	<0.079	<0.072	<0.065	<0.083	<0.11	
PS-WR22-14-S	WR22	6/13/97	1	APCL	<0.078	<0.071	<0.064	<0.082	<0.11	
PS-WR22-15-S	WR22	6/17/97	1	APCL	<0.063	0.55	<0.052	2.4	0.65	
PS-WR22-16-S	WR22	6/17/97	1	APCL	<0.065	0.47	<0.053	<0.068	0.69	
PS-WR22-17-S	WR22	6/17/97	1	APCL	<0.069	<0.063	<0.056	<0.073	<0.099	
PS-WR22-18-S	WR22	6/17/97	1	APCL	<0.063	<0.058	<0.052	<0.067	<0.091	
PS-WR22-19-S	WR22	6/17/97	1	APCL	<0.066	<0.06	<0.054	<0.07	<0.095	
PS-WR22-20-S	WR22	6/17/97	1	APCL	<0.065	<0.059	<0.053	<0.069	<0.094	
PS-WR22-21-S	WR22	6/17/97	1	APCL	<0.065	<0.059	1.2	<0.069	<0.093	
PS-WR22-22-S	WR22	6/17/97	1	APCL	<0.062	<0.056	<0.051	<0.065	<0.089	

Explosives
Method 8330 (APCL)

Sample ID	Location ID	Sample Date	D _{ppg}	D _g	Nitrobenzene	RDX	Tetryl	2-Amino-4,6-dinitrotoluene		4-Amino-2,6-dinitrotoluene	
								mg/kg	mg/kg	mg/kg	mg/kg
PS-WR22-22A-S	WR22	6/24/97	1	APCL	<0.063	<0.057	<0.051	<0.066	<0.066	<0.09	<0.09
PS-WR22-23-S	WR22	6/24/97	1	APCL	<0.063	<0.057	<0.051	<0.066	<0.066	<0.09	<0.09
PS-WR22-24-S	WR22	6/24/97	1	APCL	<0.063	<0.057	<0.051	<0.066	<0.066	<0.09	<0.09
PS-WR22-25-S	WR22	6/24/97	1	APCL	<0.066	<0.06	<0.054	<0.069	<0.069	<0.094	<0.094
PS-WR22-26-S	WR22	6/24/97	1	APCL	<0.067	<0.061	<0.055	<0.07	<0.07	<0.096	<0.096
PS-WR22-27-S	WR22	6/24/97	1	APCL	<0.062	<0.056	<0.051	<0.065	<0.065	<0.089	<0.089
PS-WR22-28-S	WR22	7/7/97	0.5	APCL	<0.059	<0.054	<0.048	<0.062	<0.062	<0.085	<0.085
PS-WR22-29-S	WR22	7/7/97	0.5	APCL	<0.06	<0.054	<0.049	<0.063	<0.063	<0.086	<0.086
PS-WR22-30-S	WR22	7/7/97	0.5	APCL	<0.06	<0.055	<0.049	<0.063	<0.063	<0.086	<0.086
PS-WR22-31-S	WR22	7/7/97	0.5	APCL	<0.061	<0.055	<0.05	<0.064	<0.064	<0.087	<0.087
PS-WR22-32-S	WR22	7/7/97	0.5	APCL	<0.059	<0.054	<0.049	<0.063	<0.063	<0.085	<0.085
PS-WR22-33-S	WR22	7/7/97	0.5	APCL	<0.06	<0.054	<0.049	<0.063	<0.063	<0.086	<0.086
PS-WR22-34-CS	WR22	7/14/97	0.5	APCL	<0.059	<0.053	<0.048	NA	NA	<0.084	<0.084
PS-WR23-1-S	WR23	7/7/97	0.5	APCL	<0.061	<0.055	<0.05	<0.064	<0.064	<0.087	<0.087
PS-WR23-2-S	WR23	7/7/97	0.5	APCL	<0.061	<0.055	<0.05	<0.064	<0.064	<0.087	<0.087
PS-WR23-3-S	WR23	7/7/97	0.5	APCL	<0.06	<0.055	<0.049	<0.063	<0.063	<0.086	<0.086
PS-WR23-4-S	WR23	7/7/97	0.5	APCL	<0.06	<0.054	<0.049	<0.063	<0.063	<0.086	<0.086
PS-WR23-5-S	WR23	7/7/97	0.5	APCL	<0.06	<0.054	<0.049	<0.063	<0.063	<0.086	<0.086
PS-WR23-6-S	WR23	7/7/97	0.5	APCL	<0.06	<0.054	<0.049	<0.063	<0.063	<0.086	<0.086
PS-WR23-7-CS	WR23	7/15/97	0.5	APCL	<0.058	<0.053	<0.048	<0.061	<0.061	<0.084	<0.084
PS-WR23-8-CS	WR24	7/7/97	0.5	APCL	<0.061	<0.055	<0.05	<0.064	<0.064	<0.087	<0.087
PS-WR24-1-S	WR24	7/7/97	0.5	APCL	<0.061	<0.055	<0.05	<0.064	<0.064	<0.087	<0.087
PS-WR24-2-S	WR24	7/7/97	0.5	APCL	<0.061	<0.055	<0.05	<0.064	<0.064	<0.087	<0.087

Explosives
Method 8330 (APCL)

Sample ID	Location ID	Sample Date	Eff Date	Lab	RDX		Tetryl	
					Nitrobenzene	mg/kg	mg/kg	mg/kg
PS-WR24-3-S	WR24	7/7/97	0.5	APCL	<0.06	<0.055	<0.049	<0.063
PS-WR24-4-S	WR24	7/7/97	0.5	APCL	<0.061	<0.055	<0.05	<0.064
PS-WR24-5-S	WR24	7/7/97	0.5	APCL	<0.06	<0.055	<0.049	<0.063
PS-WR24-6-S	WR24	7/7/97	0.5	APCL	<0.059	<0.054	<0.048	<0.062
PS-WR24-7-CS	WR24	7/15/97	0.5	APCL	<0.058	<0.052	<0.047	<0.061
<hr/>					189	189	189	182
<hr/>					0	105	1	10
<hr/>					0	0.2	1.2	0.65
<hr/>					0	85.4	1.2	14
<hr/>					40	64	800	NE
<hr/>					0	2	0	NE
<hr/>								NE

Notes:

NA = Not analyzed

NE = Not established

pH
Method 9040 (APCL)

Sample ID	Location ID	Sample Date	Depth	Lab	pH
pH unit					
PS-WR10-1-S	WR10	6/25/97	1	APCL	7.66
PS-WR10-2-S	WR10	6/25/97	1	APCL	7.85
PS-WR10-3-S	WR10	6/25/97	1	APCL	8.06
PS-WR10-4-S	WR10	6/25/97	1	APCL	8.28
<hr/>					
Analyses					4
Detections					4
Minimum Concentration					7.66
Maximum Concentration					8.28
<hr/>					
HWAD - PCG					NE
HWAD - PCG Hits					NE

Notes:

NE = Not established

Explosives
Method M8330 (APCL)

Sample ID	Location ID	Sample Date	Depth	Lab	Picric Acid mg/kg
PS-WR01-6-S	WR01	5/24/97	1	APCL	<0.78
PS-WR01-14-S	WR01	5/27/97	2	APCL	<0.75
PS-WR01-18-S	WR01	5/31/97	1	APCL	<0.84
PS-WR01-22-S	WR01	6/7/97	1	APCL	<0.72
PS-WR01-25-S	WR01	6/7/97	1	APCL	<0.77
PS-WR01-28-S	WR01	6/19/97	1.5	APCL	<0.76
PS-WR01-29-S	WR01	6/19/97	1.5	APCL	<0.77
PS-WR01-30-S	WR01	6/19/97	1.5	APCL	<0.8
PS-WR01-31-S	WR01	6/19/97	1.5	APCL	<0.79
PS-WR01-32-S	WR01	6/19/97	1.5	APCL	<0.79
PS-WR01-33-S	WR01	6/19/97	1.5	APCL	<0.81
PS-WR02-1-S	WR02	6/19/97	1.5	APCL	<0.92
PS-WR02-2-S	WR02	6/19/97	1.5	APCL	<0.91
PS-WR02-3-S	WR02	6/19/97	1.5	APCL	<0.82
PS-WR02-4-S	WR02	6/19/97	1.5	APCL	<0.94
PS-WR02-5-S	WR02	6/19/97	1.5	APCL	<0.81
PS-WR02-6-CS	WR02	7/7/97	0.5	APCL	<0.71
PS-WR03-1-S	WR03	6/20/97	2	APCL	<0.83
PS-WR03-2-S	WR03	6/20/97	2	APCL	<0.99
PS-WR03-3-S	WR03	6/20/97	2	APCL	<0.97
PS-WR03-4-S	WR03	6/20/97	2	APCL	<0.81
PS-WR03-4-CS	WR03	7/7/97	0.5	APCL	<0.7
PS-WR04-1-S	WR04	6/20/97	2	APCL	<1
PS-WR04-2-S	WR04	6/20/97	2	APCL	<0.93
PS-WR04-3-S	WR04	6/20/97	2	APCL	<0.95
PS-WR04-4-S	WR04	6/20/97	2	APCL	<0.86
PS-WR04-5-CS	WR04	7/7/97	0.5	APCL	<0.72
PS-WR05-1-S	WR05	6/20/97	2	APCL	<0.9
PS-WR05-2-S	WR05	6/20/97	2	APCL	<0.9
PS-WR05-3-S	WR05	6/20/97	2	APCL	<0.8
PS-WR05-4-S	WR05	6/20/97	2	APCL	<0.78
PS-WR05-5-S	WR05	6/20/97	2	APCL	<1
PS-WR05-6-CS	WR05	7/7/97	0.5	APCL	<0.71
PS-WR06-5-S	WR06	5/24/97	1	APCL	<0.86
PS-WR06-13-S	WR06	5/28/97	1	APCL	<1
PS-WR06-15-S	WR06	6/1/97	0.5	APCL	<0.93
PS-WR06-20-S	WR06	6/1/97	0.5	APCL	<0.99
PS-WR06-25-S	WR06	6/8/97	1	APCL	<0.91
PS-WR06-28-S	WR06	6/20/97	2	APCL	<1
PS-WR06-29-S	WR06	6/20/97	2	APCL	<1
PS-WR06-30-S	WR06	6/20/97	2	APCL	<1.1
PS-WR06-31-S	WR06	6/20/97	2	APCL	<0.8

Explosives
Method M8330 (APCL)

Sample ID	Location ID	Date	Depth	Lab	Picric Acid mg/kg
PS-WR06-32-S	WR06	6/20/97	2	APCL	<1.2
PS-WR06-33-CS	WR06	7/7/97	0.5	APCL	<0.73
PS-WR07-1-S	WR07	6/24/97	1	APCL	<0.77
PS-WR07-2-S	WR07	6/24/97	1	APCL	<0.74
PS-WR07-3-S	WR07	6/24/97	1	APCL	<0.86
PS-WR07-4-S	WR07	6/24/97	1	APCL	<0.77
PS-WR07-5-CS	WR07	7/7/97	0.5	APCL	<0.71
PS-WR08-1-S	WR08	6/24/97	1	APCL	<0.8
PS-WR08-2-S	WR08	6/24/97	1	APCL	<0.79
PS-WR08-3-S	WR08	6/24/97	1	APCL	<0.77
PS-WR08-4-S	WR08	6/24/97	1	APCL	<0.84
PS-WR08-5-S	WR08	6/24/97	1	APCL	<0.84
PS-WR08-6-CS	WR08	7/7/97	0.5	APCL	<0.7
PS-WR09-1-S	WR09	6/25/97	1	APCL	<0.83
PS-WR09-2-S	WR09	6/25/97	1	APCL	<0.84
PS-WR09-3-S	WR09	6/25/97	1	APCL	<0.83
PS-WR09-4-S	WR09	6/25/97	1	APCL	<0.81
PS-WR09-5-S	WR09	6/25/97	1	APCL	<0.81
PS-WR09-6-CS	WR09	7/7/97	0.5	APCL	<0.72
PS-WR10-1-S	WR10	6/25/97	1	APCL	<0.86
PS-WR10-2-S	WR10	6/25/97	1	APCL	<0.84
PS-WR10-3-S	WR10	6/25/97	1	APCL	<0.8
PS-WR10-4-S	WR10	6/25/97	1	APCL	<0.77
PS-WR10-5-CS	WR10	7/7/97	0.5	APCL	<0.76
PS-WR10-6-CS	WR10	7/7/97	0.5	APCL	<0.75
PS-WR11-1-S	WR11	6/25/97	1	APCL	<0.81
PS-WR11-2-S	WR11	6/25/97	1	APCL	<0.84
PS-WR11-3-S	WR11	6/25/97	1	APCL	<0.89
PS-WR11-4-S	WR11	6/25/97	1	APCL	<0.8
PS-WR11-5-S	WR11	6/25/97	1	APCL	<0.82
PS-WR11-6-CS	WR11	7/10/97	0.5	APCL	<0.72
PS-WR12-4-S	WR12	6/3/97	0.5	APCL	<0.75
PS-WR12-13-S	WR12	6/6/97	0.5	APCL	<0.88
PS-WR12-16-S	WR12	6/10/97	1	APCL	<0.87
PS-WR12-20-S	WR12	6/10/97	1	APCL	<0.85
PS-WR12-25-S	WR12	6/17/97	1	APCL	<0.82
PS-WR12-28-S	WR12	6/29/97	1	APCL	<0.88
PS-WR12-29-S	WR12	6/29/97	1	APCL	<0.79
PS-WR12-30-S	WR12	6/29/97	1	APCL	<0.78
PS-WR12-31-S	WR12	6/29/97	1	APCL	<0.77
PS-WR12-32-S	WR12	6/29/97	1	APCL	<0.8
PS-WR12-33-CS	WR12	7/10/97	0.5	APCL	<0.76

Explosives
Method M8330 (APCL)

Sample ID	Location ID	Sample Date	Depth	Lab	Picric Acid mg/kg
PS-WR13-1-S	WR13	6/29/97	1	APCL	<0.77
PS-WR13-2-S	WR13	6/29/97	1	APCL	<0.78
PS-WR13-3-S	WR13	6/29/97	1	APCL	<0.78
PS-WR13-4-S	WR13	6/29/97	1	APCL	<0.77
PS-WR13-5-S	WR13	6/29/97	1	APCL	<0.8
PS-WR13-6-CS	WR13	7/11/97	0.5	APCL	<0.82
PS-WR14-1-S	WR14	6/29/97	1	APCL	<0.78
PS-WR14-2-S	WR14	6/29/97	1	APCL	<0.8
PS-WR14-3-S	WR14	6/29/97	1	APCL	<0.81
PS-WR14-4-S	WR14	6/29/97	1	APCL	<0.81
PS-WR14-5-CS	WR14	7/11/97	0.5	APCL	<0.7
PS-WR15-1-S	WR15	6/29/97	1	APCL	<0.81
PS-WR15-2-S	WR15	6/29/97	1	APCL	<0.84
PS-WR15-3-S	WR15	6/29/97	1	APCL	<0.81
PS-WR15-4-S	WR15	6/29/97	1	APCL	<0.84
PS-WR15-5-S	WR15	6/29/97	1	APCL	<0.84
PS-WR15-6-CS	WR15	7/11/97	0.5	APCL	<0.78
PS-WR16-1-S	WR16	6/30/97	1	APCL	<0.78
PS-WR16-2-S	WR16	6/30/97	1	APCL	<0.79
PS-WR16-3-S	WR16	6/30/97	1	APCL	<0.8
PS-WR16-4-S	WR16	6/30/97	1	APCL	<0.78
PS-WR16-5-CS	WR16	7/11/97	0.5	APCL	<0.8
PS-WR17-4-S	WR17	6/4/97	0.5	APCL	<0.87
PS-WR17-13-S	WR17	6/8/97	1	APCL	<0.88
PS-WR17-16-S	WR17	6/12/97	0.5	APCL	<0.84
PS-WR17-20-S	WR17	6/12/97	0.5	APCL	<0.79
PS-WR17-28-S	WR17	7/1/97	1	APCL	<0.78
PS-WR17-29-S	WR17	7/1/97	1	APCL	<0.79
PS-WR17-30-S	WR17	7/1/97	1	APCL	<0.77
PS-WR17-31-S	WR17	7/1/97	1	APCL	<0.78
PS-WR17-32-S	WR17	7/1/97	1	APCL	<0.77
PS-WR17-33-CS	WR17	7/11/97	0.5	APCL	<0.71
PS-WR18-1-S	WR18	7/1/97	1	APCL	<0.79
PS-WR18-2-S	WR18	7/1/97	1	APCL	<0.8
PS-WR18-3-S	WR18	7/1/97	1	APCL	<0.78
PS-WR18-4-S	WR18	7/1/97	1	APCL	<0.74
PS-WR18-5-S	WR18	7/1/97	1	APCL	<0.74
PS-WR18-6-CS	WR18	7/11/97	0.5	APCL	<0.73
PS-WR19-1-S	WR19	7/2/97	1	APCL	<1
PS-WR19-2-S	WR19	7/2/97	1	APCL	<1.1
PS-WR19-3-S	WR19	7/2/97	1	APCL	<1
PS-WR19-4-S	WR19	7/2/97	1	APCL	<0.98

Explosives
Method M8330 (APCL)

Sample ID	Location ID	Sample Date	Depth	Lab	Picric Acid mg/kg
PS-WR19-5-S	WR19	7/2/97	1	APCL	<1
PS-WR19-6-CS	WR19	7/14/97	0.5	APCL	<0.72
PS-WR20-1-S	WR20	7/7/97	0.5	APCL	<0.75
PS-WR20-2-S	WR20	7/7/97	0.5	APCL	<0.75
PS-WR20-3-S	WR20	7/7/97	0.5	APCL	<0.74
PS-WR20-4-S	WR20	7/7/97	0.5	APCL	<0.75
PS-WR20-5-S	WR20	7/7/97	0.5	APCL	<0.74
PS-WR20-6-S	WR20	7/7/97	0.5	APCL	<0.74
PS-WR20-7-CS	WR20	7/14/97	0.5	APCL	<0.69
PS-WR21-1-S	WR21	7/7/97	0.5	APCL	<0.75
PS-WR21-2-S	WR21	7/7/97	0.5	APCL	<0.75
PS-WR21-3-S	WR21	7/7/97	0.5	APCL	<0.75
PS-WR21-4-CS	WR21	7/14/97	0.5	APCL	<0.71
PS-WR22-1-S	WR22	6/9/97	1	APCL	2470
PS-WR22-2-S	WR22	6/9/97	1	APCL	2720
PS-WR22-3-S	WR22	6/9/97	1	APCL	2440
PS-WR22-4-S	WR22	6/9/97	1	APCL	3300
PS-WR22-5-S	WR22	6/9/97	1	APCL	3900
PS-WR22-6-S	WR22	6/9/97	1	APCL	7570
PS-WR22-7-S	WR22	6/9/97	1	APCL	3200
PS-WR22-8-S	WR22	6/13/97	1	APCL	428
PS-WR22-9-S	WR22	6/13/97	1	APCL	<1.1
PS-WR22-10-S	WR22	6/13/97	1	APCL	317
PS-WR22-11-S	WR22	6/13/97	1	APCL	531
PS-WR22-12-S	WR22	6/13/97	1	APCL	<0.98
PS-WR22-13-S	WR22	6/13/97	1	APCL	<0.98
PS-WR22-14-S	WR22	6/13/97	1	APCL	<0.96
PS-WR22-15-S	WR22	6/17/97	1	APCL	250
PS-WR22-16-S	WR22	6/17/97	1	APCL	300
PS-WR22-17-S	WR22	6/17/97	1	APCL	170
PS-WR22-18-S	WR22	6/17/97	1	APCL	44
PS-WR22-19-S	WR22	6/17/97	1	APCL	599
PS-WR22-20-S	WR22	6/17/97	1	APCL	1600
PS-WR22-21-S	WR22	6/17/97	1	APCL	1110
PS-WR22-22-S	WR22	6/17/97	1	APCL	904
PS-WR22-22A-S	WR22	6/24/97	1	APCL	<0.77
PS-WR22-23-S	WR22	6/24/97	1	APCL	<0.77
PS-WR22-24-S	WR22	6/24/97	1	APCL	<0.77
PS-WR22-25-S	WR22	6/24/97	1	APCL	<0.81
PS-WR22-26-S	WR22	6/24/97	1	APCL	<0.83
PS-WR22-27-S	WR22	6/24/97	1	APCL	<0.76
PS-WR22-28-S	WR22	7/7/97	0.5	APCL	<0.73

Explosives
Method M8330 (APCL)

Sample ID	Location ID	Date	Depth	Lab	Picric Acid mg/kg
PS-WR22-29-S	WR22	7/7/97	0.5	APCL	<0.74
PS-WR22-30-S	WR22	7/7/97	0.5	APCL	<0.74
PS-WR22-31-S	WR22	7/7/97	0.5	APCL	<0.75
PS-WR22-32-S	WR22	7/7/97	0.5	APCL	<0.73
PS-WR22-33-S	WR22	7/7/97	0.5	APCL	<0.74
PS-WR22-34-CS	WR22	7/14/97	0.5	APCL	<0.72
PS-WR23-1-S	WR23	7/7/97	0.5	APCL	9.2
PS-WR23-2-S	WR23	7/7/97	0.5	APCL	<0.75
PS-WR23-3-S	WR23	7/7/97	0.5	APCL	<0.74
PS-WR23-4-S	WR23	7/7/97	0.5	APCL	<0.74
PS-WR23-5-S	WR23	7/7/97	0.5	APCL	<0.74
PS-WR23-6-S	WR23	7/7/97	0.5	APCL	<0.74
PS-WR23-7-CS	WR23	7/15/97	0.5	APCL	<0.72
PS-WR23-8-CS	WR23	7/15/97	0.5	APCL	<0.72
PS-WR24-1-S	WR24	7/7/97	0.5	APCL	<0.75
PS-WR24-2-S	WR24	7/7/97	0.5	APCL	<0.75
PS-WR24-3-S	WR24	7/7/97	0.5	APCL	<0.74
PS-WR24-4-S	WR24	7/7/97	0.5	APCL	<0.75
PS-WR24-5-S	WR24	7/7/97	0.5	APCL	<0.74
PS-WR24-6-S	WR24	7/7/97	0.5	APCL	<0.73
PS-WR24-7-CS	WR24	7/15/97	0.5	APCL	<0.71
<hr/>					
Analyses					189
Detections					19
Minimum Concentration					9.2
Maximum Concentration					7570
<hr/>					
HWAD - PCG					7
HWAD - PCG Hits					19

**Pit A Confirmation Samples
Bioremediation Pilot Study**

Sample ID	Location ID	Sample Date	Depth ft	Lab	1,3,5-Trinitrobenzene	2,4,6-Trinitrotoluene	2,4-Dinitrotoluene	HMX	RDX	Picric Acid
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
I15-CF02-1-S	CF02	5/26/97	0	APCL	11.2	17.5	<0.042	0.37	1.8	<0.69
I15-CF03-1-S	CF03	5/26/97	0	APCL	2.1	3.3	<0.042	0.35	1.3	<0.69
I15-CF04-1-S	CF04	5/26/97	0	APCL	7.31	5.95	<0.043	0.56	1.6	<0.71
Samples					3	3	3	3	3	3
Analyses					3	3	3	3	3	3
Detections					3	3	0	3	3	0
Maximum Final Confirmation Concentration					11.2	17.5	0	0.56	1.8	0
Pilot Study Excavation Goal					150	800	2	100	300	NE
Pilot Study Excavation Goal Hits					0	0	0	0	0	NE

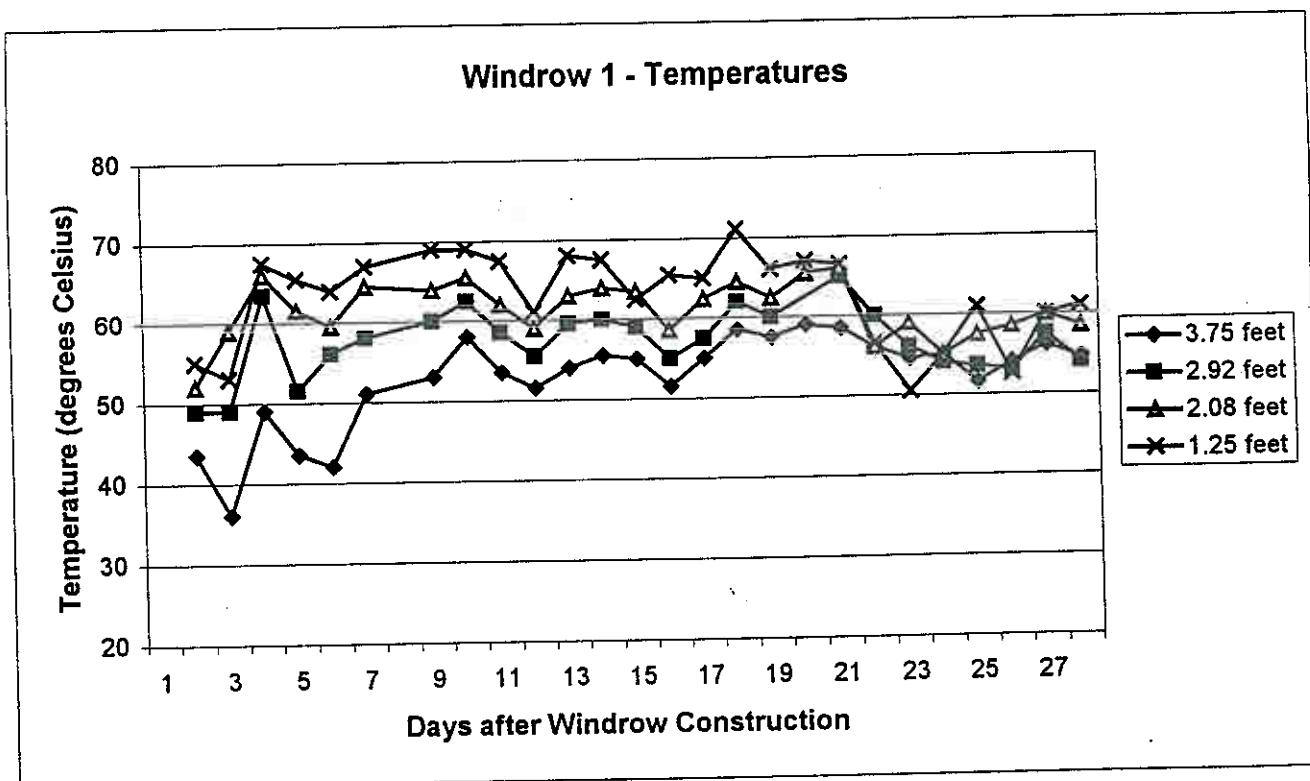
Notes: NA = Not analyzed
NE = Not established

**Pit B Mixed Samples
Bioremediation Pilot Study**

Sample ID	Location ID	Sample Date	Depth ft	Lab	RDX	2,4,6-TNT
					mg/kg	mg/kg
I15-MS05-1-S	MS05	5/9/97	0	Tt Field	<0.8	<0.8
I15-MS06-1-S	MS06	5/9/97	0	Tt Field	1.47	<0.8
I15-MS07-1-S	MS07	5/9/97	0	Tt Field	<0.8	<0.8
I15-MS08-1-S	MS08	5/9/97	0	Tt Field	3.07	<0.8
I15-MS09-1-S	MS09	5/9/97	0	Tt Field	8.67	<0.8
Samples					5	5
Analyses					5	5
Detections					3	0
Maximum Concentration					8.67	0

Windrow 1
Temperature Monitoring Data
Bioremediation Pilot Study
Hawthorne Army Depot, Hawthorne, NV

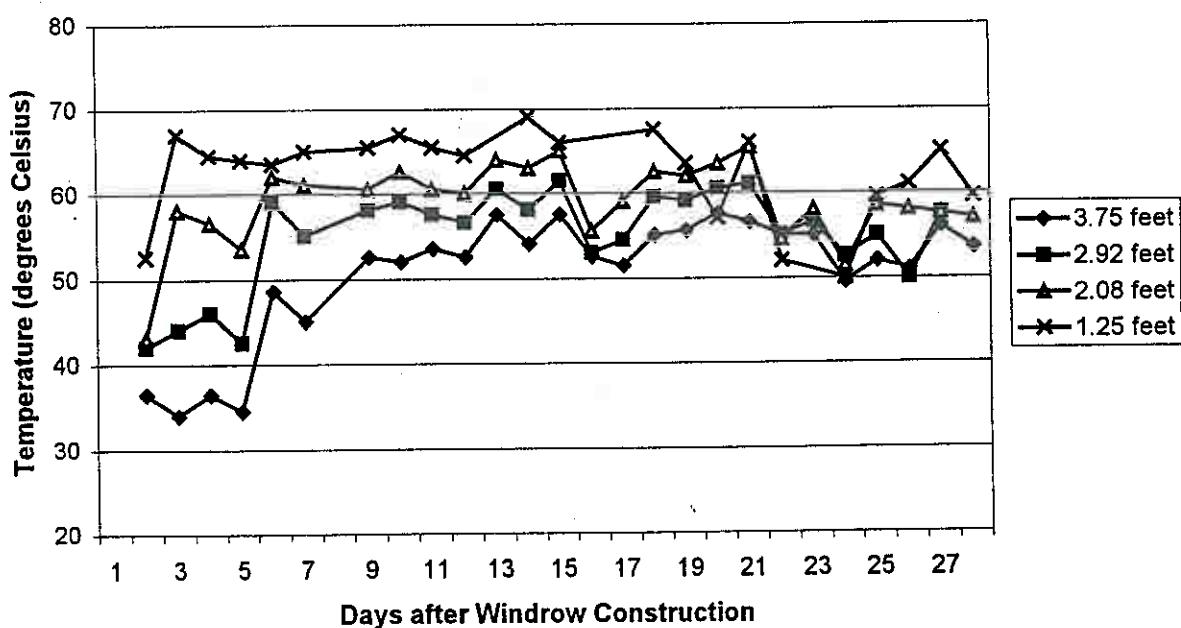
Days after Windrow Construction	°C	°C	°C	°C
	3.75 feet	2.92 feet	2.08 feet	1.25 feet
1				
2	43.5	49	52	55
3	36	49	59	53
4	49	63.5	66	67.5
5	43.5	51.5	61.5	65.5
6	42	56	59.5	64
7	51	58	64.5	67
8				
9	53	60	64	69
10	58	62.5	65.5	69
11	53.5	58.5	62	67.5
12	51.5	55.5	59	61
13	54	59.5	63	68
14	55.5	60	64	67.5
15	55	59	63.5	62.5
16	51.5	55	58.5	65.5
17	55	57.5	62.5	65
18	58.5	62	64.5	71
19	57.5	60	62.5	66
20	59		65.5	67
21	58.5	65	66	66.5
22	56	60	56	56.5
23	54.5	56	59	50.5
24	55	54	55	55
25	51.5	53.5	57.5	61
26	54	53	58.5	52.5
28	54.5	54	58.5	61



Windrow 2
 Temperature Monitoring Data
 Bioremediation Pilot Study
 Hawthorne Army Depot, Hawthorne, NV

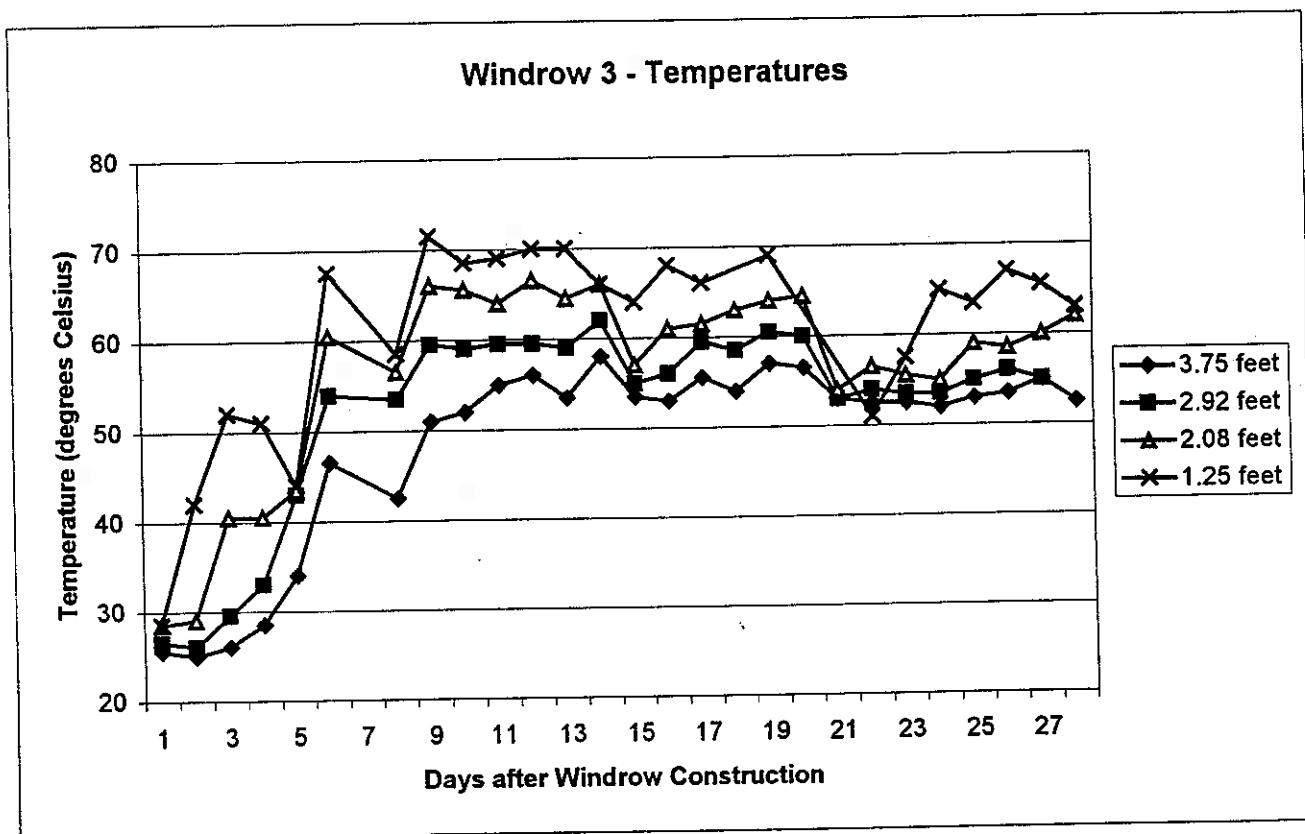
Days after Windrow Construction	°C	°C	°C	°C
	3.75 feet	2.92 feet	2.08 feet	1.25 feet
1				
2	36.5	42	43	52.5
3	34	44	58	67
4	36.5	46	56.5	64.5
5	34.5	42.5	53.5	64
6	48.5	59	62	63.5
7	45	55	61	65
8				
9	52.5	58	60.5	65.5
10	52	59	62.5	67
11	53.5	57.5	60.5	65.5
12	52.5	56.5	60	64.5
13	57.5	60.5	64	
14	54	58	63	69
15	57.5	61.5	65	66
16	52.5	53	55.5	
17	51.5	54.5	59	
18	55	59.5	62.5	67.5
19	55.5	59	62	63.5
20	57.5	60.5	63.5	57
21	56.5	61	65.5	66
22	55	55	54.5	52
23	55	56.5	58	
24	49.5	52.5	51.5	50
25	52	55	58.5	59.5
26	51	50	58	61
27	56	57.5	57.5	65
28	53.5		57	59.5

Windrow 2- Temperatures



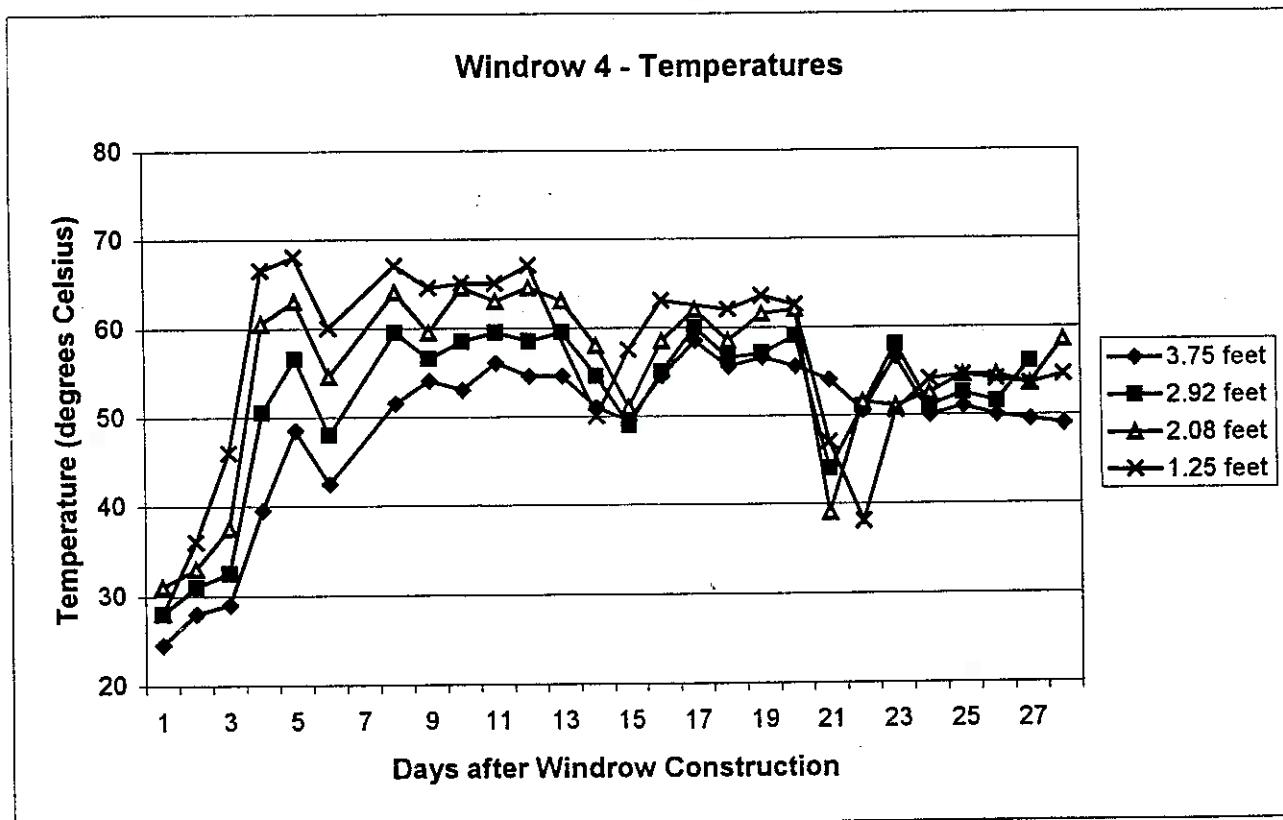
Windrow 3
 Temperature Monitoring Data
 Bioremediation Pilot Study
 Hawthorne Army Depot, Hawthorne, NV

Days after Windrow Construction	°C	°C	°C	°C
	3.75 feet	2.92 feet	2.08 feet	1.25 feet
1	25.5	26.5	28.5	28.5
2	25	26	29	42
3	26	29.5	40.5	52
4	28.5	33	40.5	51
5	34	43	43.5	44
6	46.5	54	60.5	67.5
7				
8	42.5	53.5	56.5	58.5
9	51	59.5	66	71.5
10	52	59	65.5	68.5
11	55	59.5	64	69
12	56	59.5	66.5	70
13	53.5	59	64.5	70
14	58	62	66	66
15	53.5	55	57	64
16	53	56	61	68
17	55.5	59.5	61.5	66
18	54	58.5	63	
19	57	60.5	64	69
20	56.5	60	64.5	
21	53	53	54	
22	52.5	54	56.5	51
23	52.5	53.5	55.5	57.5
24	52	53.5	55	65
25	53	55	59	63.5
26	53.5	56	58.5	67
27	55	55	60	65.5
28	52.5		62	63



Windrow 4
Temperature Monitoring Data
Bioremediation Pilot Study
Hawthorne Army Depot, Hawthorne, NV

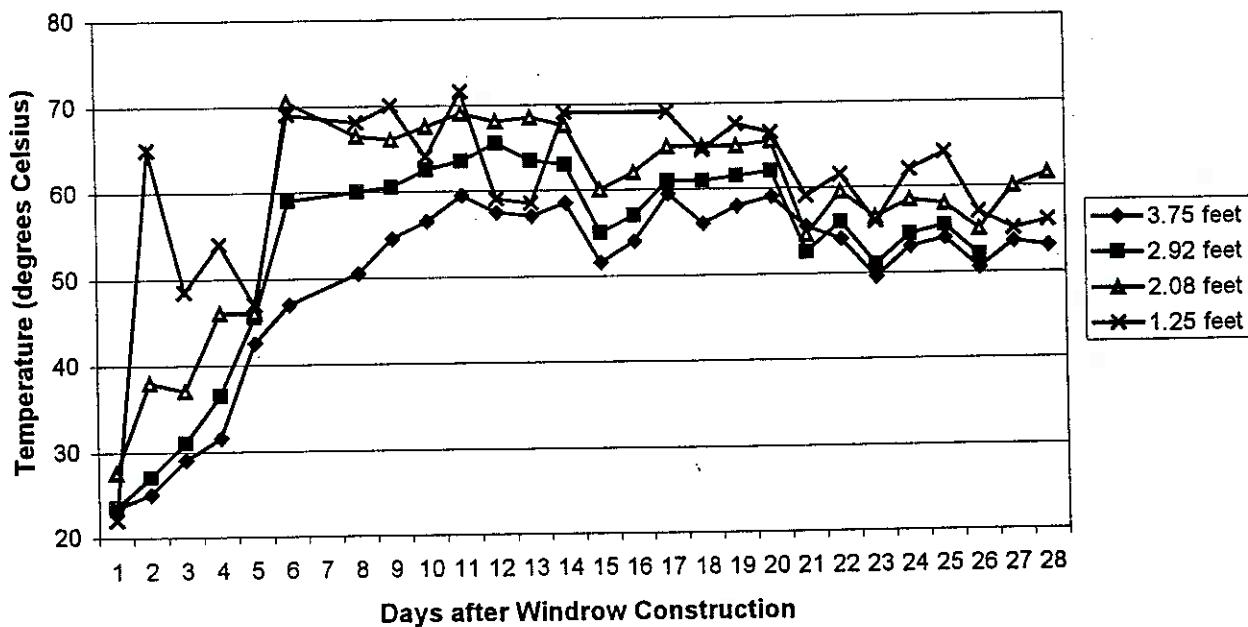
Days after Windrow Construction	°C	°C	°C	°C
	3.75 feet	2.92 feet	2.08 feet	1.25 feet
1	24.5	28	31	28
2	28	31	33	36
3	29	32.5	37.5	46
4	39.5	50.5	60.5	66.5
5	48.5	56.5	63	68
6	42.5	48	54.5	60
7				
8	51.5	59.5	64	67
9	54	56.5	59.5	64.5
10	53	58.5	64.5	65
11	56	59.5	63	65
12	54.5	58.5	64.5	67
13	54.5	59.5	63	
14	51	54.5	58	50
15	49.5	49	51	57.5
16	54.5	55	58.5	63
17	58.5	60	62	
18	55.5	56.5	58.5	62
19	56.5	57	61.5	63.5
20	55.5	59	62	62.5
21	54	44	39	47
22	50.5	51	51.5	38
23	56.5	58	51	50.5
24	50	51	52.5	54
25	51	52.5	54.5	54.5
26	50	51.5	54.5	54
27	49.5	56	53.5	53.5
28	49		58.5	54.5



Windrow 5
 Temperature Monitoring Data
 Bioremediation Pilot Study
 Hawthorne Army Depot, Hawthorne, NV

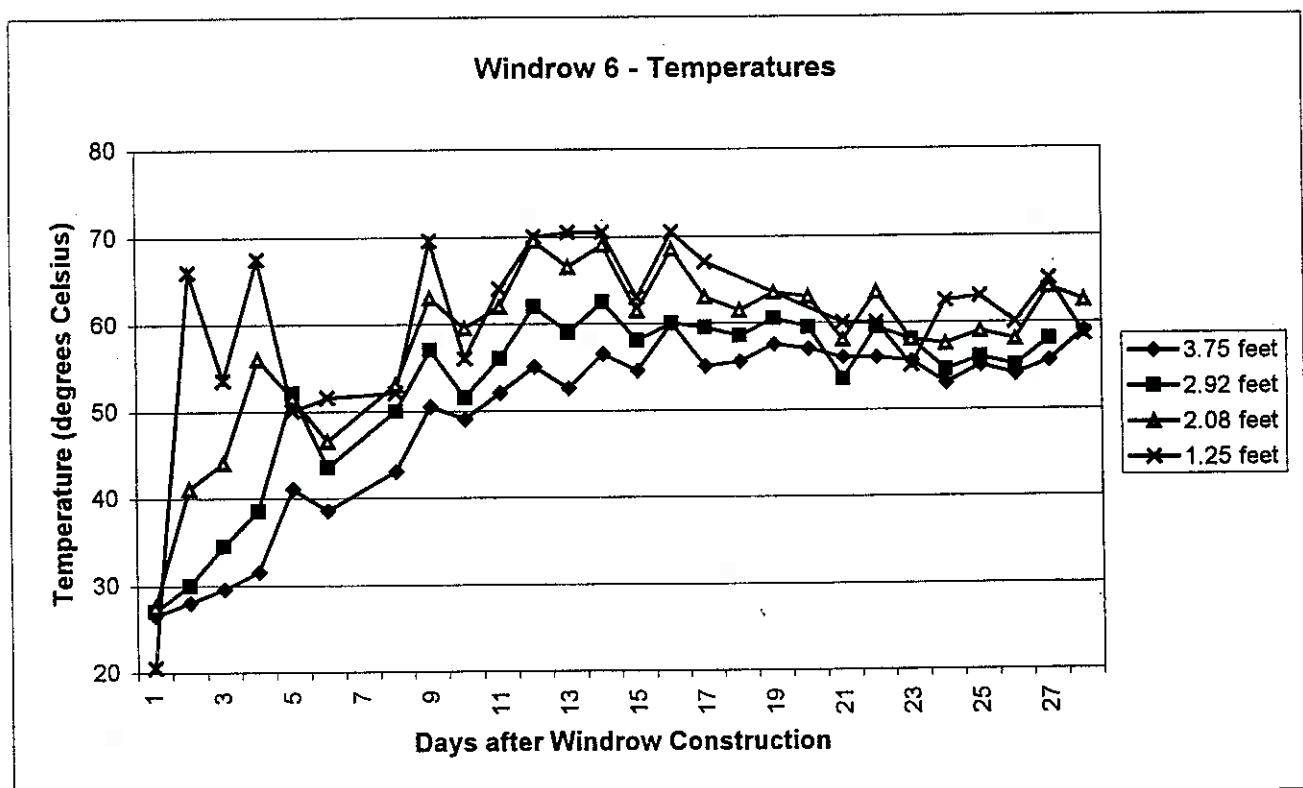
Days after Windrow Construction	°C	°C	°C	°C
	3.75 feet	2.92 feet	2.08 feet	1.25 feet
1	23.5	23.5	27.5	22
2	25	27	38	65
3	29	31	37	48.5
4	31.5	36.5	46	54
5	42.5	45.5	46	47
6	47	59	70.5	69
7				
8	50.5	60	66.5	68
9	54.5	60.5	66	70
10	56.5	62.5	67.5	64
11	59.5	63.5	69	71.5
12	57.5	65.5	68	59
13	57	63.5	68.5	58.5
14	58.5	63	67.5	69
15	51.5	55	60	
16	54	57	62	
17	59.5	61	65	69
18	56	61	65	64.5
19	58	61.5	65	67.5
20	59	62	65.5	66.5
21	55.5	52.5	54.5	59
22	54	56	59.5	61.5
23	49.5	51	56.5	56
24	53	54.5	58.5	62
25	54	55.5	58	64
26	50.5	52	55	57
27	53.5		60	55
28	53		61.5	56

Windrow 5 - Temperatures



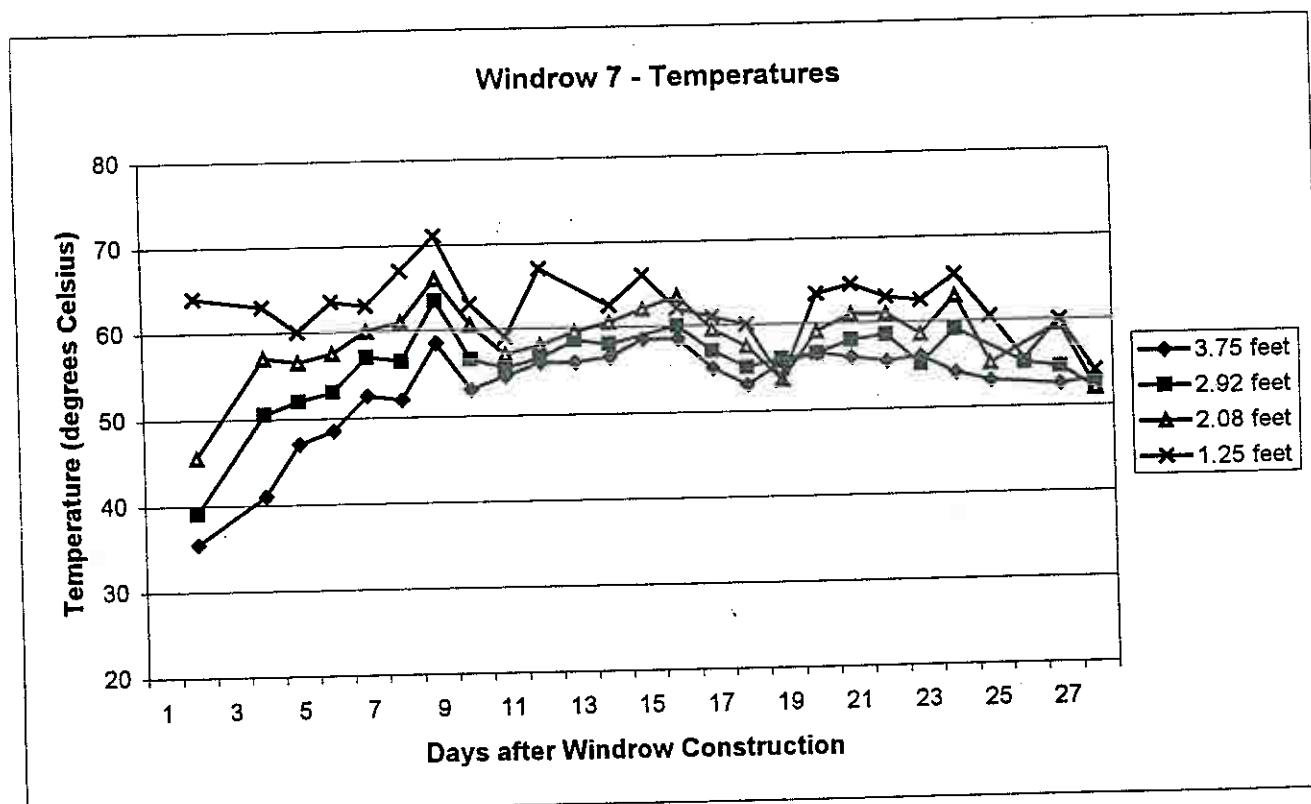
Windrow 6
Temperature Monitoring Data
Bioremediation Pilot Study
Hawthorne Army Depot, Hawthorne, NV

Days after Windrow Construction	°C	°C	°C	°C
	3.75 feet	2.92 feet	2.08 feet	1.25 feet
1	26.5	27	27.5	20.5
2	28	30	41	66
3	29.5	34.5	44	53.5
4	31.5	38.5	56	67.5
5	41	52	51.5	50
6	38.5	43.5	46.5	51.5
7				
8	43	50	53	52
9	50.5	57	63	69.5
10	49	51.5	59.5	56
11	52	56	62	64
12	55	62	69.5	70
13	52.5	59	66.5	70.5
14	56.5	62.5	69	70.5
15	54.5	58	61.5	63
16	60	60	68.5	70.5
17	55	59.5	63	67
18	55.5	58.5	61.5	
19	57.5	60.5	63.5	
20	57	59.5	63	
21	56	53.5	58	60
22	56	59.5	63.5	60
23	55.5	58	58	55
24	53	54.5	57.5	62.5
25	55	56	59	63
26	54	55	58	60
27	55.5	58	64	65
28	59		62.5	58.5



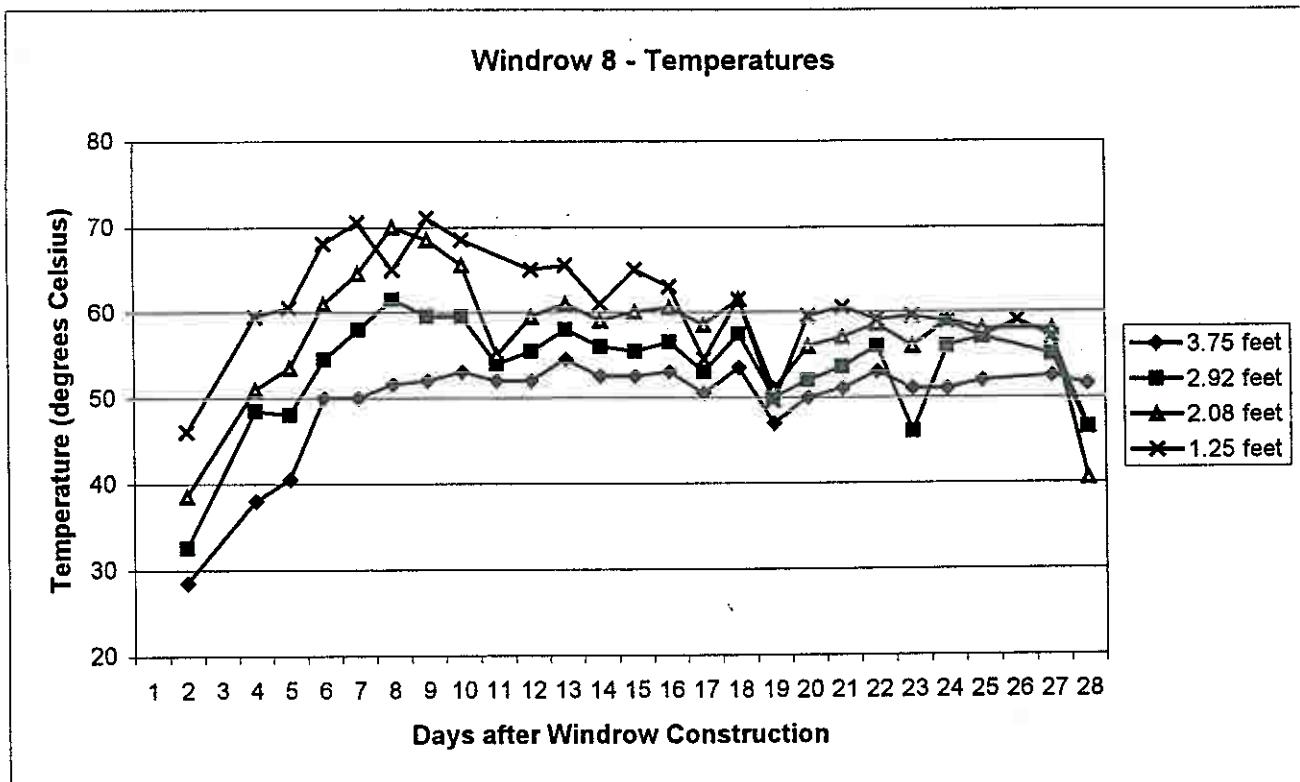
Windrow 7
 Temperature Monitoring Data
 Bioremediation Pilot Study
 Hawthorne Army Depot, Hawthorne, NV

Days after Windrow Construction	°C	°C	°C	°C
	3.75 feet	2.92 feet	2.08 feet	1.25 feet
1				
2	35.5	39	45.5	64
3				
4	41	50.5	57	63
5	47	52	56.5	60
6	48.5	53	57.5	63.5
7	52.5	57	60	63
8	52	56.5	61	67
9	58.5	63.5	66	71
10	53	56.5	60.5	63
11	54.5	55.5	57	59
12	56	56.5	58	67
13	56	58.5	59.5	
14	56.5	58	60.5	62.5
15	58.5		62	66
16	58.5	60	63.5	62
17	55	57	59.5	61
18	53	55	57.5	60
19	55.5	56	53.5	53.5
20	56.5	56.5	59	63.5
21	56	58	61	64.5
22	55.5	58.5	61	63
23	56	55	58.5	62.5
24	54	59	63	65.5
25	53		55	60.5
26		55		55.5
27	52.5	54.5	59.5	60
28	53	52	52	54



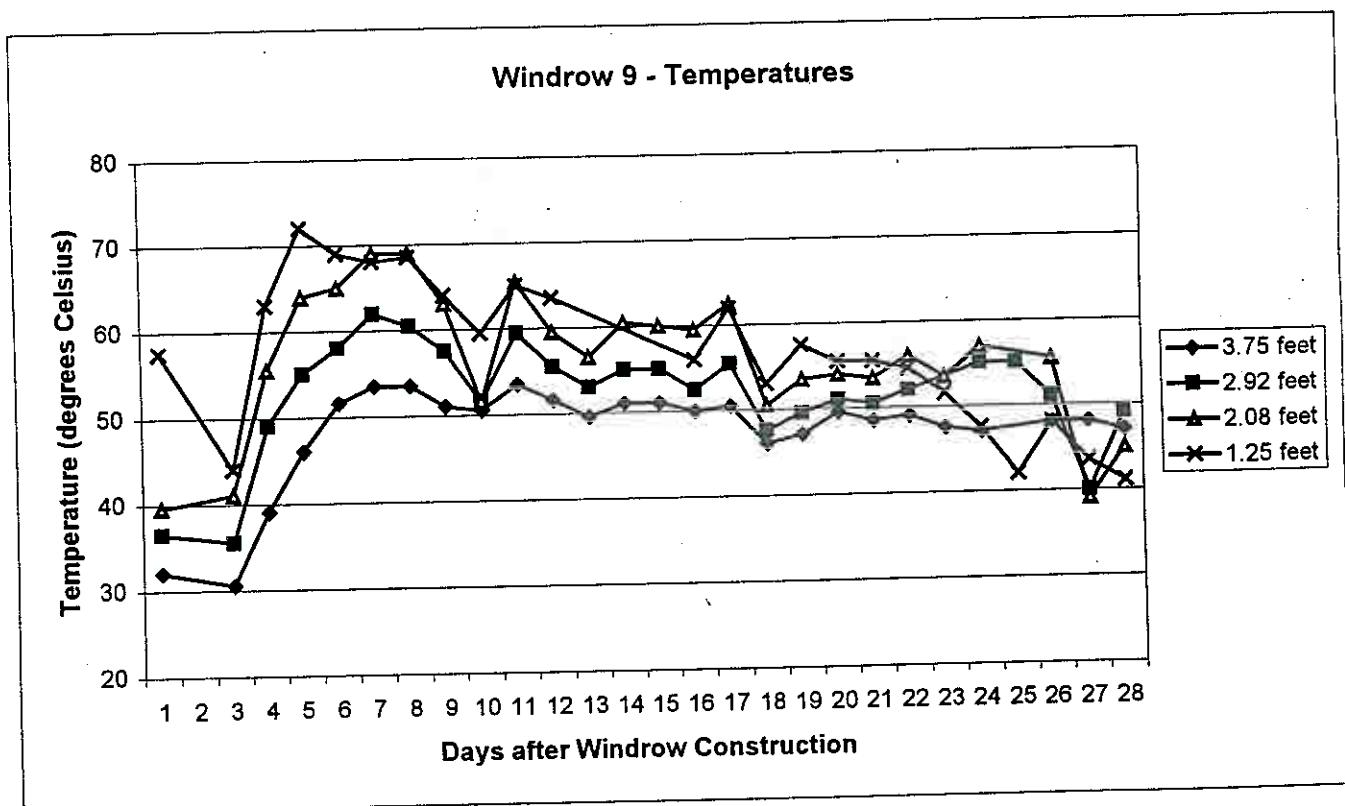
Windrow 8
 Temperature Monitoring Data
 Bioremediation Pilot Study
 Hawthorne Army Depot, Hawthorne, NV

Days after Windrow Construction	°C	°C	°C	°C
	3.75 feet	2.92 feet	2.08 feet	1.25 feet
1				
2	28.5	32.5	38.5	46
3				
4	38	48.5	51	59.5
5	40.5	48	53.5	60.5
6	50	54.5	61	68
7	50	58	64.5	70.5
8	51.5	61.5	70	65
9	52	59.5	68.5	71
10	53	59.5	65.5	68.5
11	52	54	55	
12	52	55.5	59.5	65
13	54.5	58	61	65.5
14	52.5	56	59	61
15	52.5	55.5	60	65
16	53	56.5	60.5	63
17	50.5	53	58.5	54.5
18	53.5	57.5	61.5	61.5
19	47	50	51	49.5
20	50	52	56	59.5
21	51	53.5	57	60.5
22	53	56	58.5	59
23	51	46	56	59.5
24	51	56	59	58.8
25	52	57	58	57
26				59
27	52.5	55	58	57
28	51.5	46.5	40.5	46.5



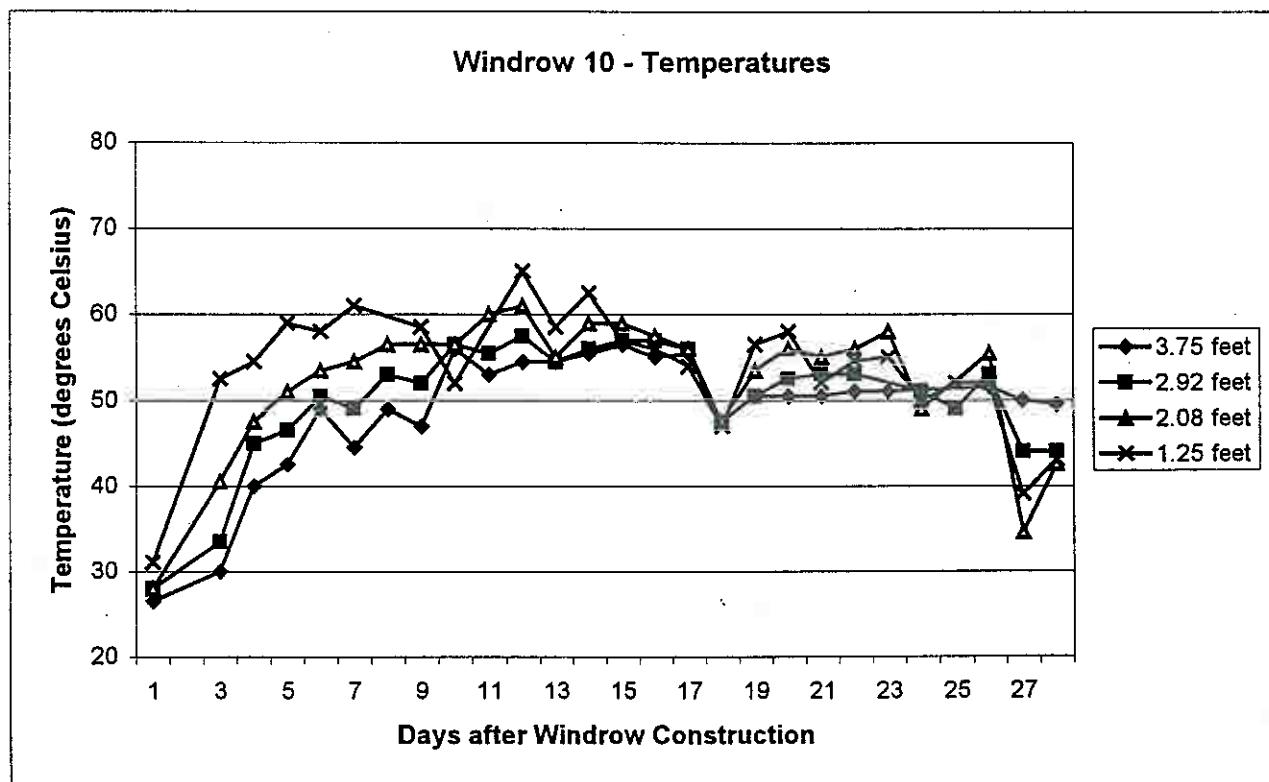
Windrow 9
 Temperature Monitoring Data
 Bioremediation Pilot Study
 Hawthorne Army Depot, Hawthorne, NV

Days after Windrow Construction	°C	°C	°C	°C
	3.75 feet	2.92 feet	2.08 feet	1.25 feet
1	32	36.5	39.5	57.5
2				
3	30.5	35.5	41	44
4	39	49	55.5	63
5	46	55	64	72
6	51.5	58	65	69
7	53.5	62	69	68
8	53.5	60.5	69	68.5
9	51	57.5	63	64
10	50.5	51.5	51.5	59.5
11	53.5	59.5	65.5	65
12	51.5	55.5	59.5	63.5
13	49.5	53	56.5	
14	51	55	60.5	
15	51	55	60	
16	50	52.5	59.5	56
17	50.5	55.5	62.5	62
18	46	47.5	50.5	53
19	47	49.5	53.5	57.5
20	49.5	51	54	55.5
21	48.5	50.5	53.5	55.5
22	49	52	56	54.5
23	47.5		53.5	51.5
24	47	56	57	47.5
25		55		42
26	48	51	55.5	48
27	48	40	39	43.5
28	47	49	45	41



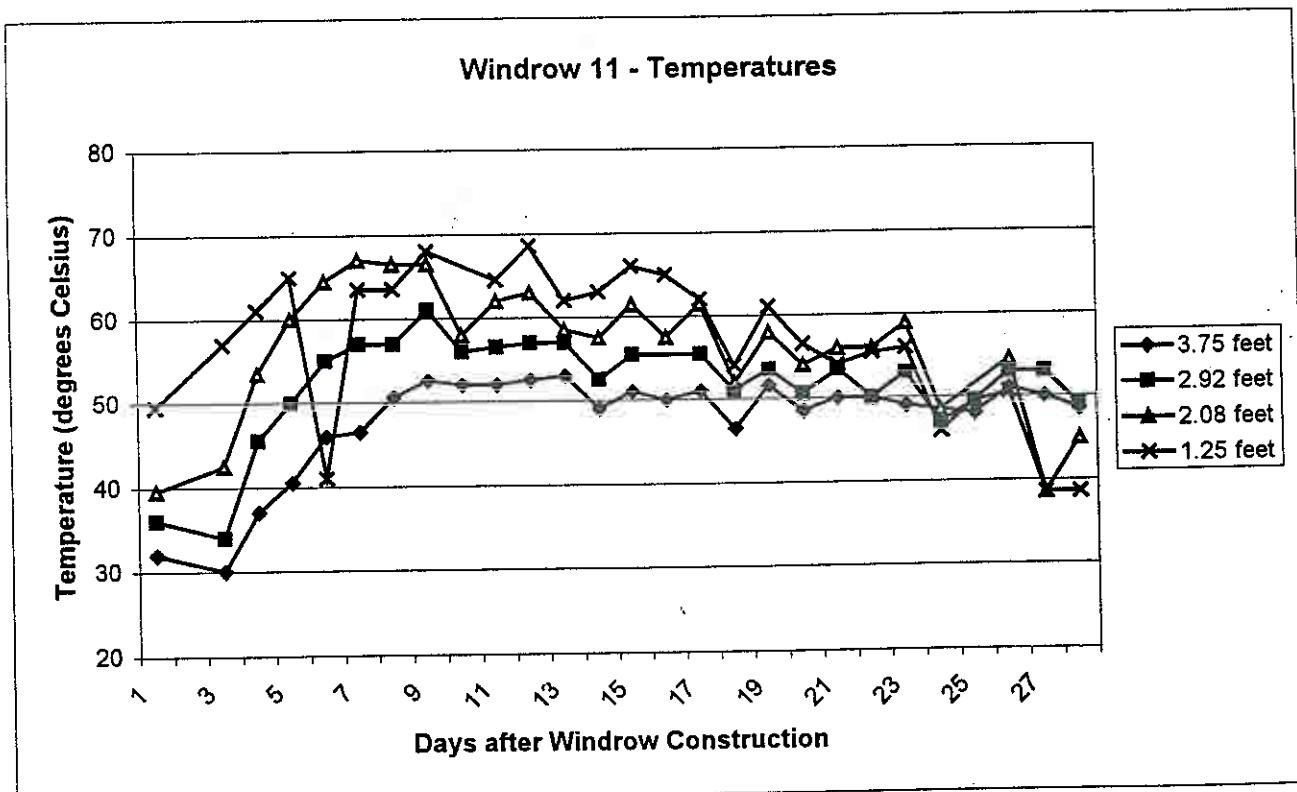
Windrow 10
 Temperature Monitoring Data
 Bioremediation Pilot Study
 Hawthorne Army Depot, Hawthorne, NV

Days after Windrow Construction	°C	°C	°C	°C
	3.75 feet	2.92 feet	2.08 feet	1.25 feet
1	26.5	28	28	31
2				
3	30	33.5	40.5	52.5
4	40	45	47.5	54.5
5	42.5	46.5	51	59
6	49	50.5	53.5	58
7	44.5	49	54.5	61
8	49	53	56.5	
9	47	52	56.5	58.5
10	56	56.5	56.5	52
11	53	55.5	60	
12	54.5	57.5	61	65
13	54.5	54.5	55	58.5
14	55.5	56	59	62.5
15	56.5	57	59	57
16	55	57	57.5	56
17	55.5	56	56	54
18	47.5	47.5	47.5	47
19	50.5	50.5	53.5	56.5
20	50.5	52.5	56	58
21	50.5	53	55	52
22	51	53	56	54.5
23	51		58	55
24		51	49	50
25		49		52
26	51.5	53	55.5	52
27	50	44	34.5	39
28	49.5	44	42.5	43



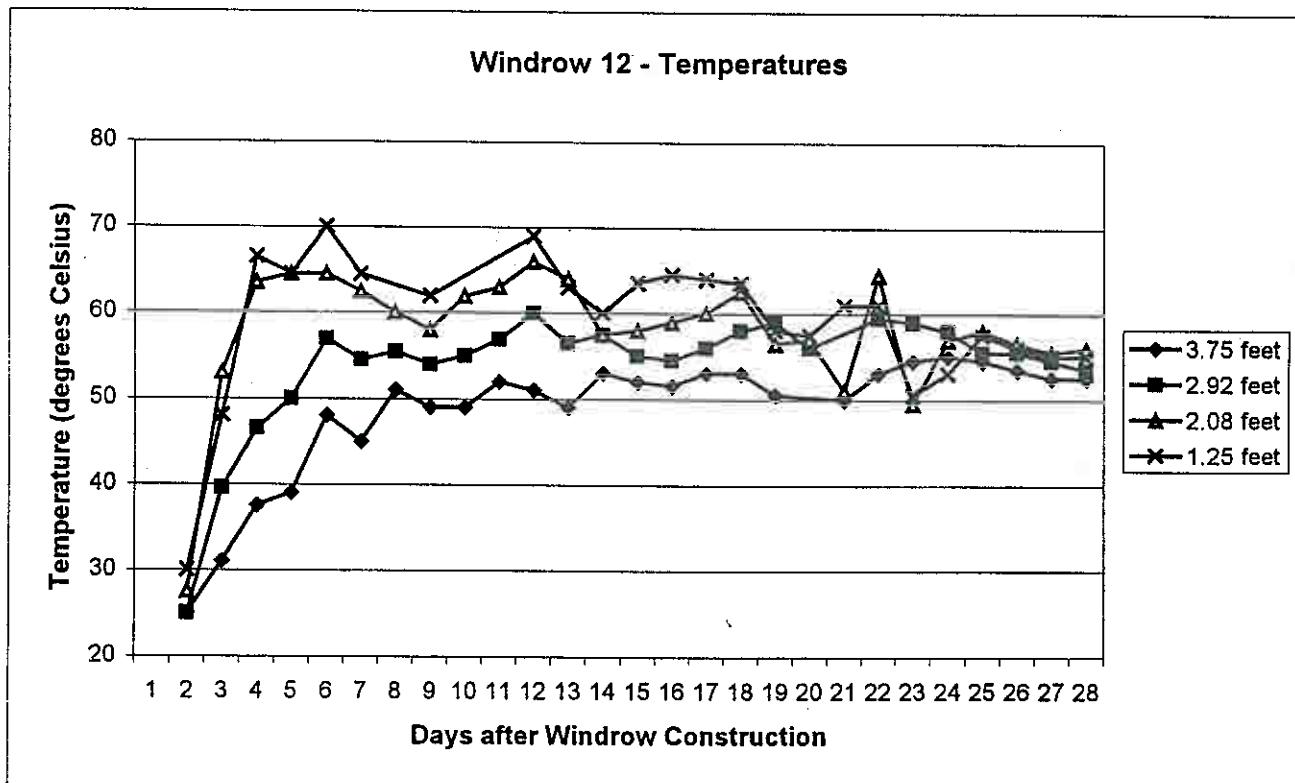
Windrow 11
Temperature Monitoring Data
Bioremediation Pilot Study
Hawthorne Army Depot, Hawthorne, NV

Days after Windrow Construction	°C	°C	°C	°C
	3.75 feet	2.92 feet	2.08 feet	1.25 feet
1	32	36	39.5	49.5
2				
3	30	34	42.5	57
4	37	45.5	53.5	61
5	40.5	50	60	65
6	46	55	64.5	41
7	46.5	57	67	63.5
8	50.5	57	66.5	63.5
9	52.5	61	66.5	68
10	52	56	58	
11	52	56.5	62	64.5
12	52.5	57	63	68.5
13	53	57	58.5	62
14	49	52.5	57.5	63
15	51	55.5	61.5	66
16	50		57.5	65
17	51	55.5	61.5	62
18	46.5	51	52	54
19	51.5	53.5	58	61
20	48.5	50.5	54	56.5
21	50	53.5	56	54
22	50	50	56	55.5
23	49	53	59	56
24		47	48.5	46
25	48	49.5		49.5
26	51	53	54.5	50.5
27	50	53	38.5	38.5
28	48.5	49	45	38.5



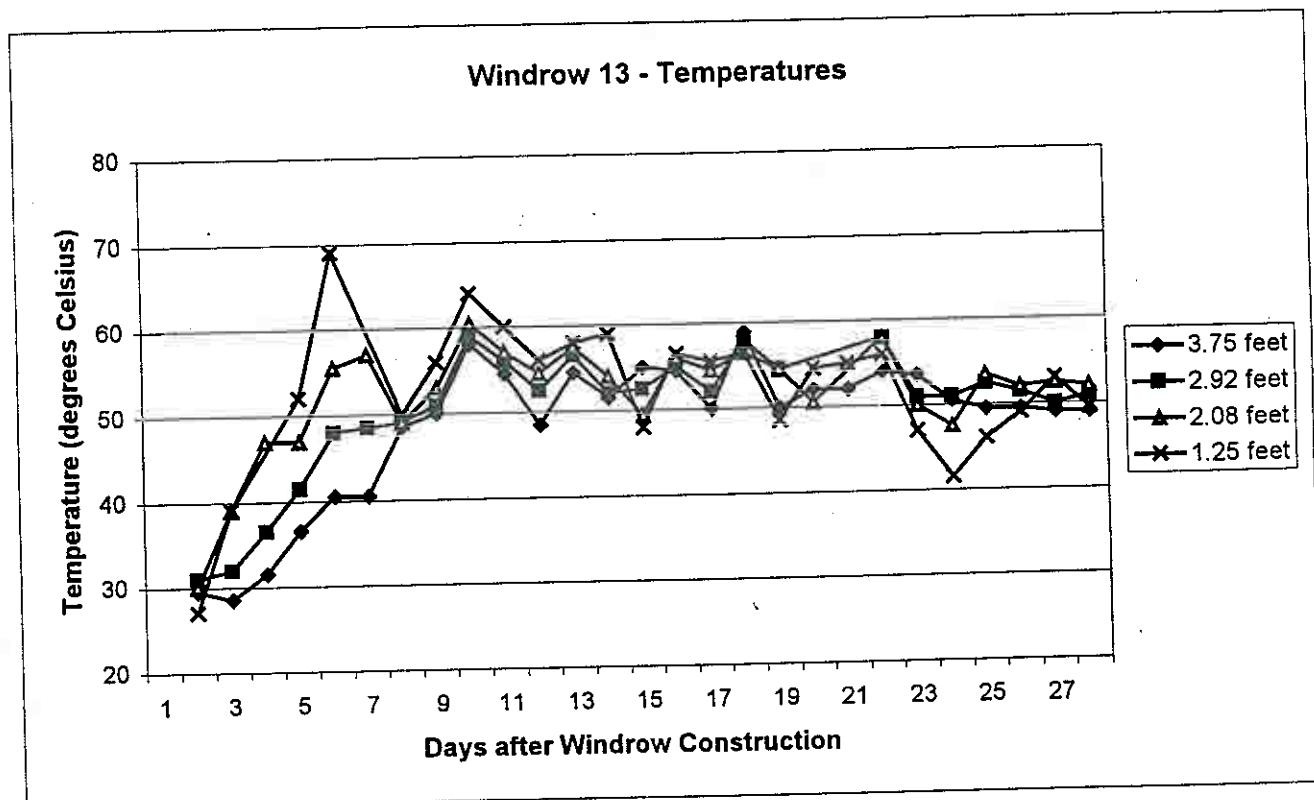
Windrow 12
 Temperature Monitoring Data
 Bioremediation Pilot Study
 Hawthorne Army Depot, Hawthorne, NV

Days after Windrow Construction	°C	°C	°C	°C
	3.75 feet	2.92 feet	2.08 feet	1.25 feet
1				
2	25	25	27.5	30
3	31	39.5	53	48
4	37.5	46.5	63.5	66.5
5	39	50	64.5	64.5
6	48	57	64.5	70
7	45	54.5	62.5	64.5
8	51	55.5	60	
9	49	54	58	62
10	49	55	62	
11	52	57	63	
12	51	60	66	69
13	49	56.5	64	63
14	53	57.5	57.5	60
15	52	55	58	63.5
16	51.5	54.5	59	64.5
17	53	56	60	64
18	53	58	62.5	63.5
19	50.5	59	56.5	58
20		56	57	57.5
21	50		51	61
22	53	59.5	64.5	61
23	54.5	59	49.5	50.5
24	55	58	57	53
25	54.5	55.5	58	57.5
26	53.5	55.5	56.5	56
27	52.5	54.5	55.5	55
28	52.5	53.5	56	55



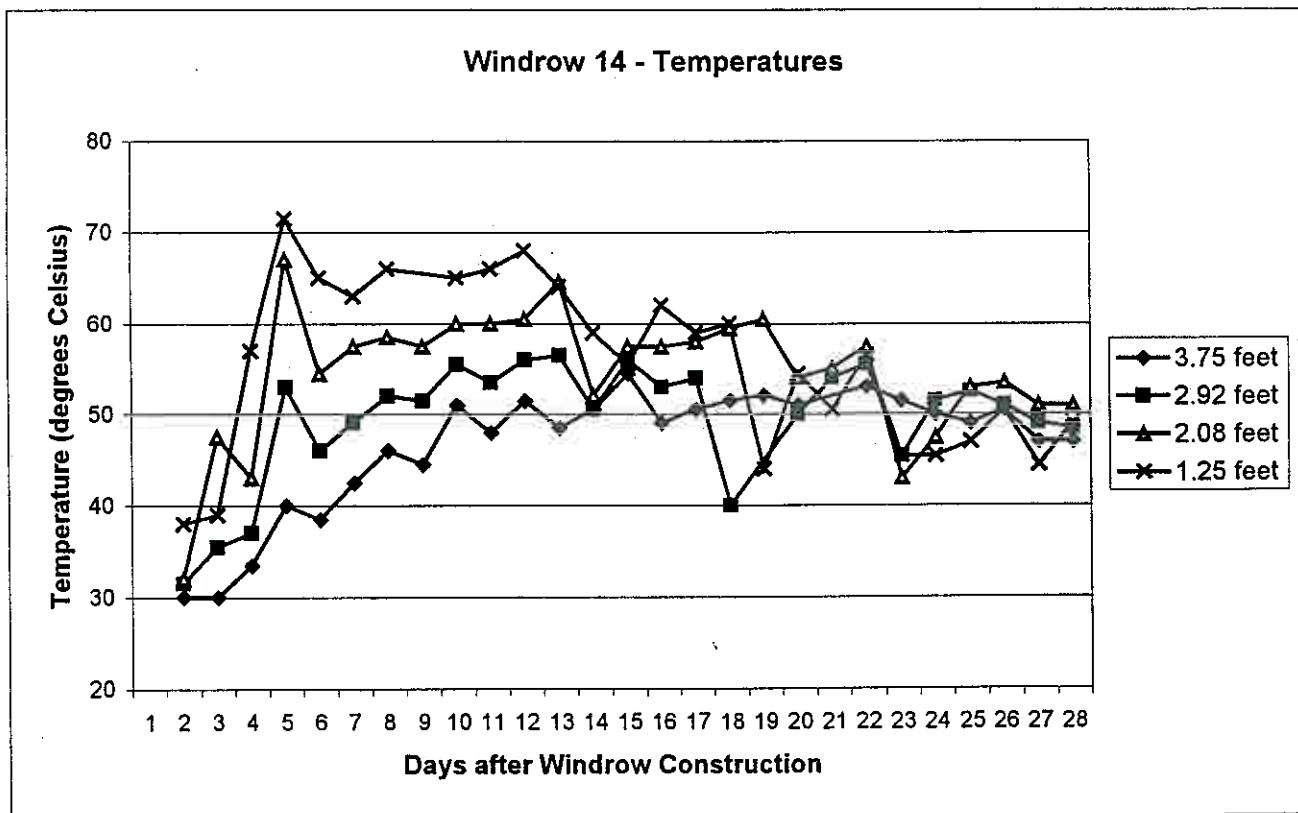
Windrow 13
 Temperature Monitoring Data
 Bioremediation Pilot Study
 Hawthorne Army Depot, Hawthorne, NV

Days after Windrow Construction	°C	°C	°C	°C
	3.75 feet	2.92 feet	2.08 feet	1.25 feet
1				
2	29.5	31	30	27
3	28.5	32	39	39
4	31.5	36.5	47	
5	36.5	41.5	47	52
6	40.5	48	55.5	69
7	40.5	48.5	57	
8	48.5	49	49	50
9	50	51	53	56
10	58	59	60.5	64
11	54.5	56	57	60
12	48.5	52.5	54.5	56
13	54.5	56.5	57.5	58
14	51.5	52	54	59
15	55	52.5	49.5	48
16	54.5	55	56	56.5
17	50	52	54.5	55.5
18	59	58	56.5	56.5
19	50	54.5	54.5	48.5
20	52		50.5	54.5
21	52			55
22	54	58	58	56
23	53.5	51	50	47
24	50.5	51	47.5	41.5
25	49.5	52.5	53.5	46
26	49.5	51.5	52	49
27	49	50	52.5	53
28	49	51	52	49.5



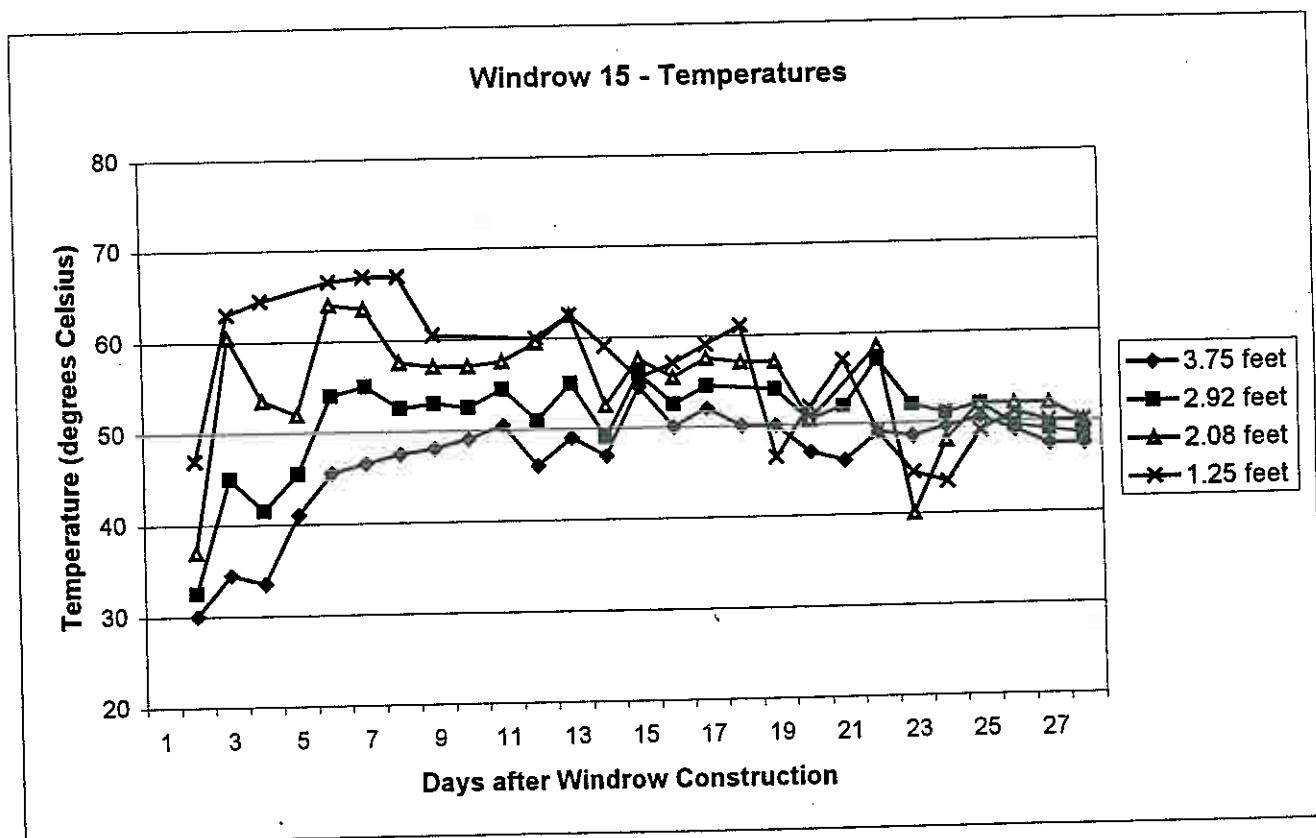
Windrow 14
 Temperature Monitoring Data
 Bioremediation Pilot Study
 Hawthorne Army Depot, Hawthorne, NV

Days after Windrow Construction	°C	°C	°C	°C
	3.75 feet	2.92 feet	2.08 feet	1.25 feet
1				
2	30	31.5	32	38
3	30	35.5	47.5	39
4	33.5	37	43	57
5	40	53	67	71.5
6	38.5	46	54.5	65
7	42.5	49	57.5	63
8	46	52	58.5	66
9	44.5	51.5	57.5	
10	51	55.5	60	65
11	48	53.5	60	66
12	51.5	56	60.5	68
13	48.5	56.5	64.5	64
14	50.5	50.5	52	59
15	54.5	56	57.5	55.5
16	49	53	57.5	62
17	50.5	54	58	59
18	51.5	40	59.5	60
19	52		60.5	44
20	51	50	54	54.5
21		54	55	50.5
22	53	55.5	57.5	56.5
23	51.5	45.5	43	45.5
24	50	51.5	47.5	45.5
25	49	52.5	53	47
26	50.5	51	53.5	50.5
27	47	49	51	44.5
28	47	48.5	51	49



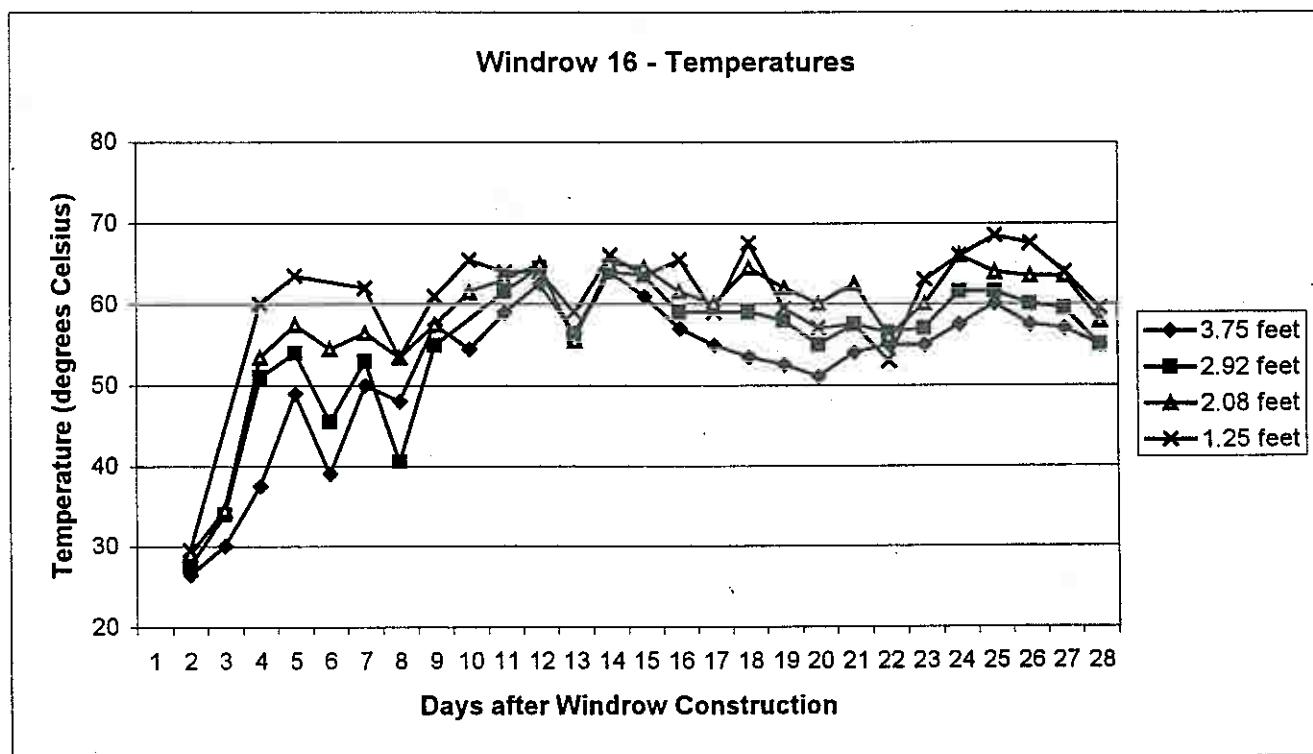
Windrow 15
 Temperature Monitoring Data
 Bioremediation Pilot Study
 Hawthorne Army Depot, Hawthorne, NV

Days after Windrow Construction	°C	°C	°C	°C
	3.75 feet	2.92 feet	2.08 feet	1.25 feet
1				
2	30	32.5	37	47
3	34.5	45	60.5	63
4	33.5	41.5	53.5	64.5
5	41	45.5	52	
6	45.5	54	64	66.5
7	46.5	55	63.5	67
8	47.5	52.5	57.5	67
9	48	53	57	60.5
10	49	52.5	57	
11	50.5	54.5	57.5	
12	46	51	59.5	60
13	49	55	62.5	62.5
14	47	49	52.5	59
15	54.5	56	57.5	55.5
16	50	52.5	55.5	57
17	52	54.5	57.5	59
18	50		57	61
19	50	54	57	46.5
20	47	50.5	50.5	52
21	46	52		57
22	49	57	58.5	49
23	48.5	52	40	44.5
24	49.5	51	48	43.5
25	50.5	52	52	49
26	49	49.5	52	51
27	47.5	49	52	50
28	47.5	48.5	50	50



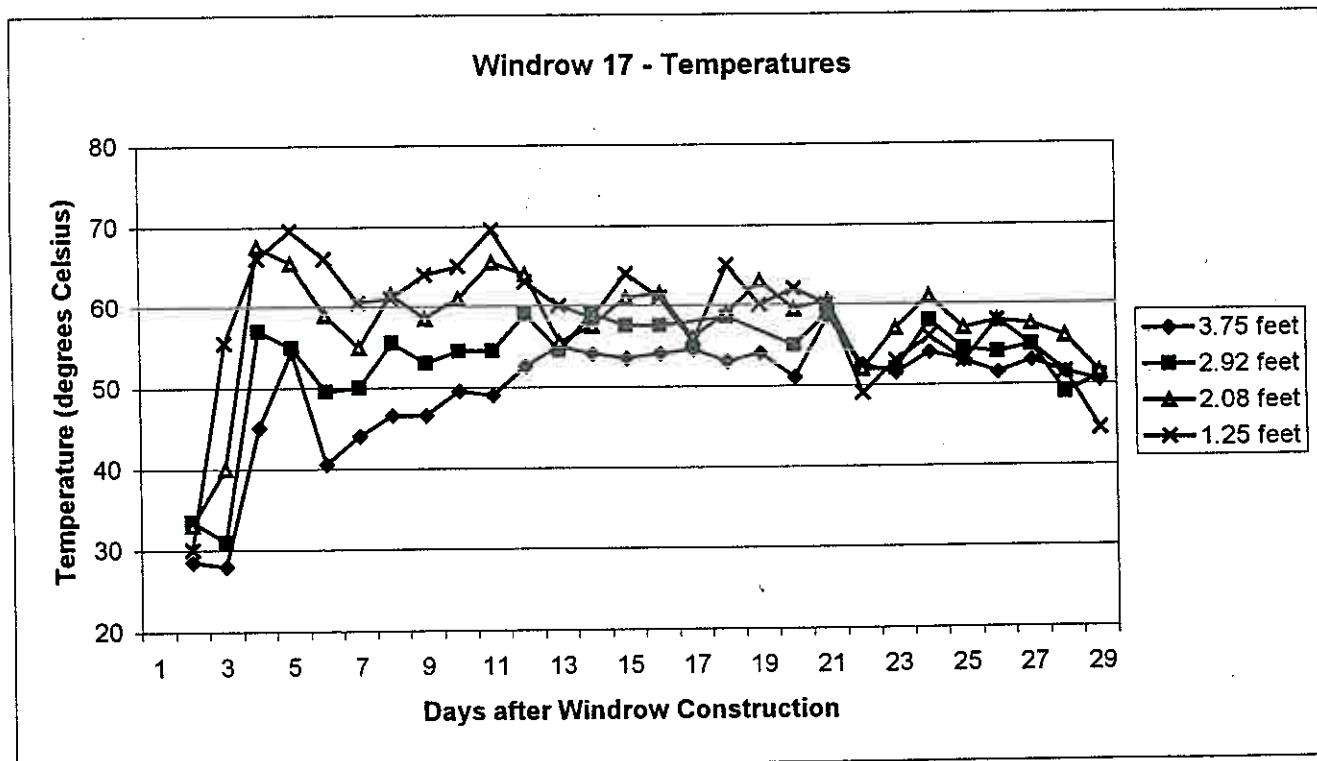
Windrow 16
 Temperature Monitoring Data
 Bioremediation Pilot Study
 Hawthorne Army Depot, Hawthorne, NV

Days after Windrow Construction	°C	°C	°C	°C
	3.75 feet	2.92 feet	2.08 feet	1.25 feet
1				
2	26.5	27.5	29	29.5
3	30	34	34.5	
4	37.5	51	53.5	60
5	49	54	57.5	63.5
6	39	45.5	54.5	
7	50	53	56.5	62
8	48	40.5	53.5	53.5
9	57.5	55	57.5	61
10	54.5		61.5	65.5
11	59	61.5	63	64
12	62.5	64.5	65	64
13	56.5	56	55.5	59
14	64	64	65	66
15	61	63.5	64.5	63.5
16	57	59	61.5	65.5
17	55		60	59
18	53.5	59	64.5	67.5
19	52.5	58	62	59.5
20	51	55	60	57
21	54	57.5	62.5	57.5
22	55	56.5	56	53
23	55	57	60	63
24	57.5	61.5	66	66
25	60	61.5	64	68.5
26	57.5	60	63.5	67.5
27	57	59.5	63.5	64
28	55	55	58	59.5



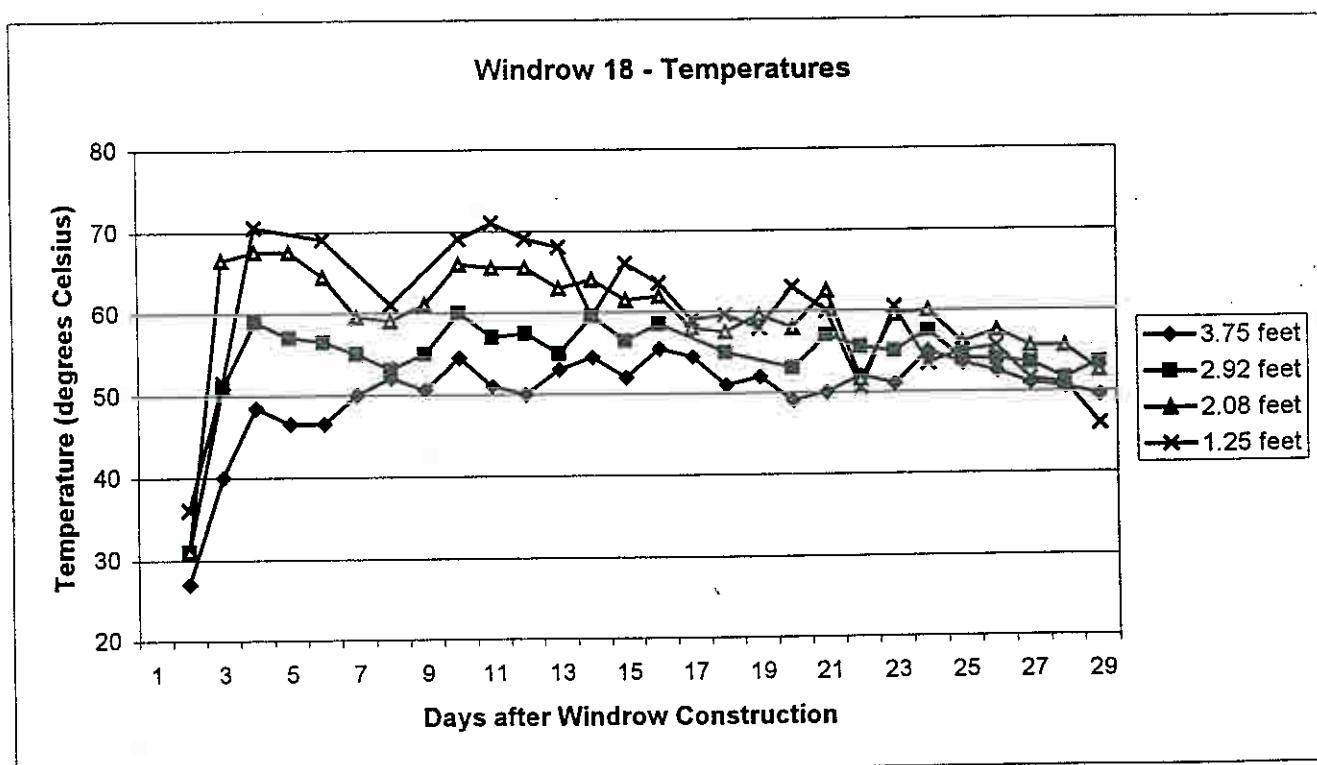
Windrow 17
 Temperature Monitoring Data
 Bioremediation Pilot Study
 Hawthorne Army Depot, Hawthorne, NV

Days after Windrow Construction	°C	°C	°C	°C
	3.75 feet	2.92 feet	2.08 feet	1.25 feet
1				
2	28.5	33.5	33	30
3	28	31	40	55.5
4	45	57	67.5	66
5	54.5	55	65.5	69.5
6	40.5	49.5	59	66
7	44	50	55	60.5
8	46.5	55.5	61.5	61
9	46.5	53	58.5	64
10	49.5	54.5	61	65
11	49	54.5	65.5	69.5
12	52.5	59	64	63
13	55	54.5	55.5	60
14	54	59	57.5	58.5
15	53.5	57.5	61	64
16	54	57.5	61.5	61
17	54.5		56	55.5
18	53	58.5	59	65
19	54		63	60
20	51	55	59.5	62
21	58.5	59	60.5	60
22	52.5	52	52	49
23	51.5	52	57	53
24	54	58	61	56
25	53	54.5	57	53
26	51.5	54	58	58
27	53	55	57.5	55
28	51.5	49	56	51.5
29	50.5	51	51.5	44.5



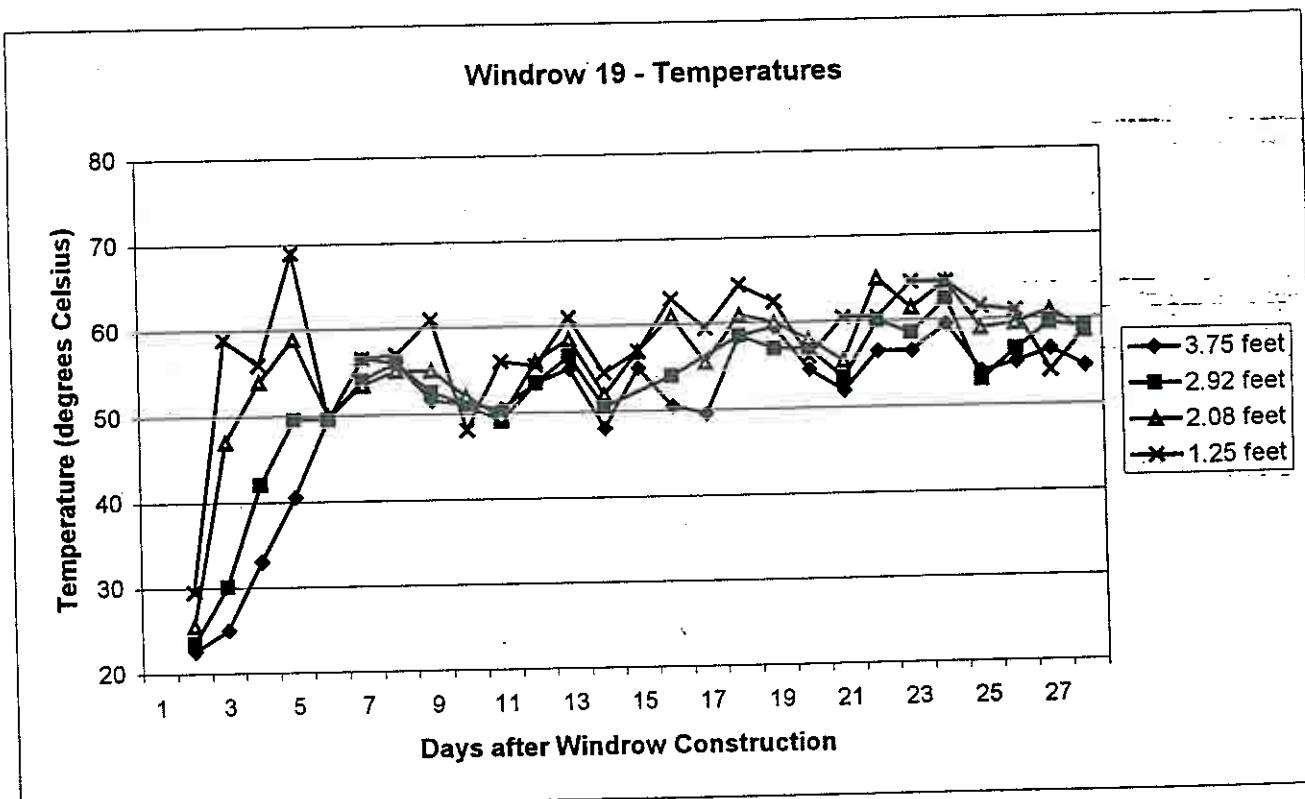
Windrow 18
 Temperature Monitoring Data
 Bioremediation Pilot Study
 Hawthorne Army Depot, Hawthorne, NV

Days after Windrow Construction	°C	°C	°C	°C
	3.75 feet	2.92 feet	2.08 feet	1.25 feet
1				
2	27	31	31	36
3	40	51	66.5	51.5
4	48.5	59	67.5	70.5
5	46.5	57	67.5	
6	46.5	56.5	64.5	69
7	50	55	59.5	
8	52	53	59	61
9	50.5	55	61	
10	54.5	60	66	69
11	51	57	65.5	71
12	50	57.5	65.5	69
13	53	55	63	68
14	54.5	59.5	64	59.5
15	52	56.5	61.5	66
16	55.5	58.5	62	63.5
17	54.5		58	59
18	51	55	57.5	59.5
19	52		59.5	58
20	49	53	58	63
21	50	57	62.5	60
22	52	55.5	51.5	50.5
23	51	55	59.5	60.5
24	55	57.5	60	53.5
25	53.5	54	56	55
26	52.5	54	57.5	55.5
27	51	53.5	55.5	51.5
28	50.5	51.5	55.5	51
29	49.5	53.5	52.5	46



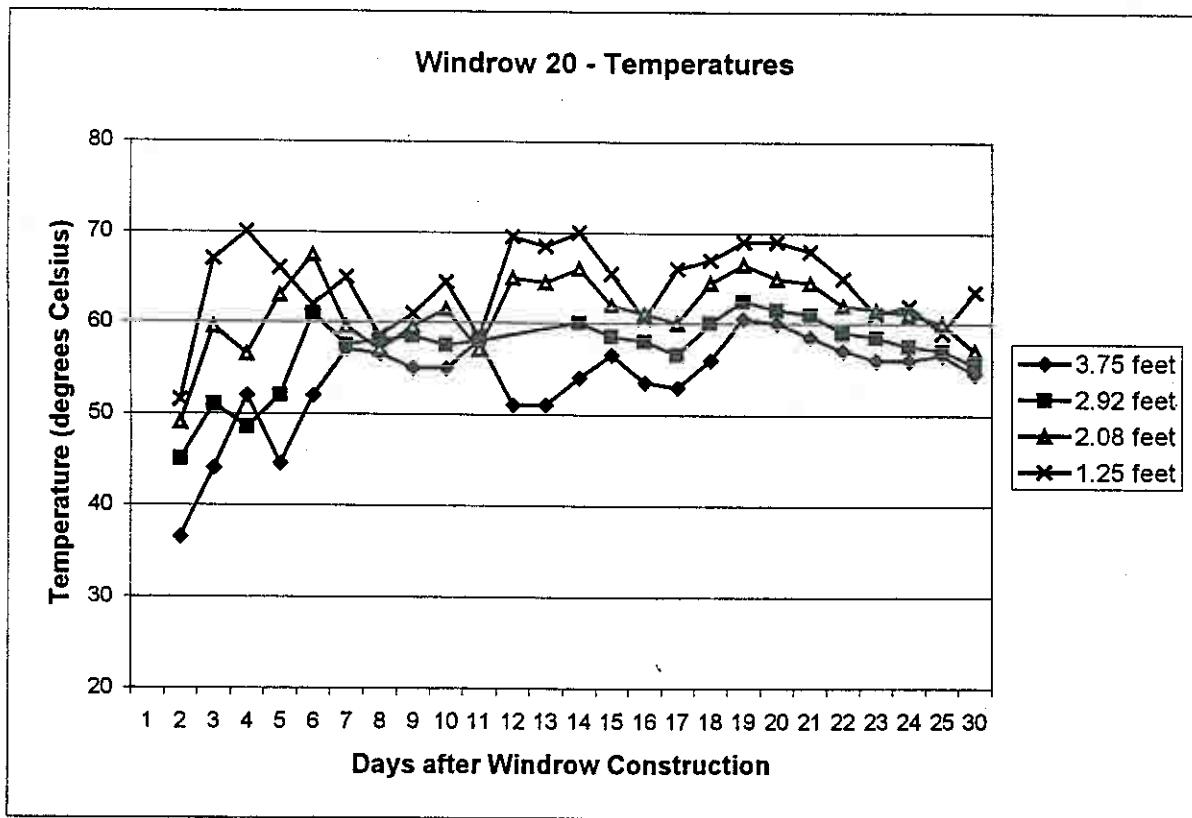
Windrow 19
 Temperature Monitoring Data
 Bioremediation Pilot Study
 Hawthorne Army Depot, Hawthorne, NV

Days after Windrow Construction	°C	°C	°C	°C
	3.75 feet	2.92 feet	2.08 feet	1.25 feet
1				
2	22.5	23.5	25.5	29.5
3	25	30.05	47	59
4	33	42	54	56
5	40.5	49.5	59	69
6	49.5	49.5	50	49.5
7	56.5	54	53.5	56.5
8	56	56	55	57
9	51.5	52.5	55	61
10	51	51	52	48
11	50.5	49	49.5	56
12	53.5	53.5	56	55.5
13	55	56.5	58.5	61
14	48	50.5	52	54.5
15	55		57	57
16	50.5	54	61	63
17	49.5		55.5	59.5
18	58.5	58.5	61	64.5
19	59.5	57	60	62.5
20	54.5	57	58	56
21	52	53.5	55.5	60.5
22	56.5	60	65	60.5
23	56.5	58.5	61.5	64.5
24	59.5	62.5	64.5	64.5
25	54	53	59	61.5
26	55	56.5	59.5	61
27	56.5	59.5	61	54
28	54.5	59	58.5	58.5



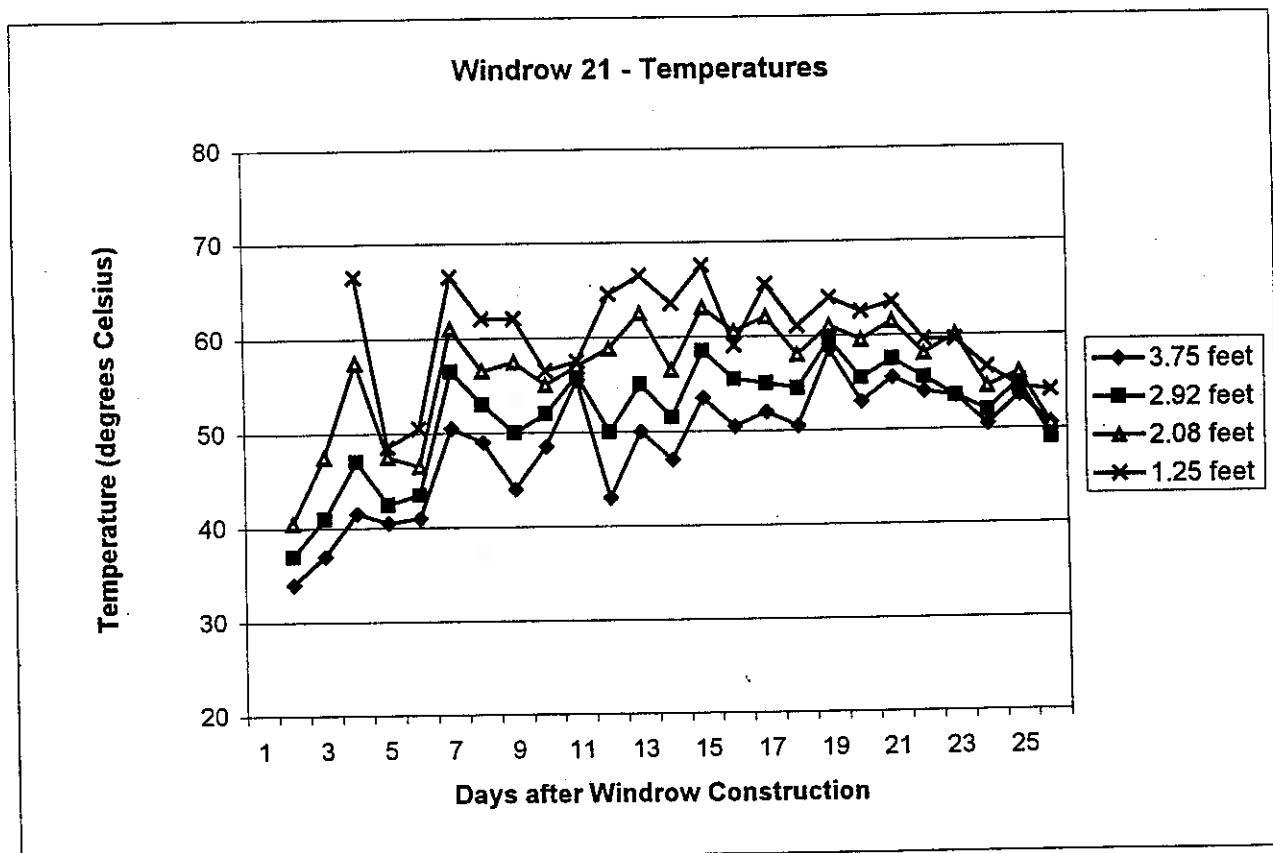
Windrow 20
 Temperature Monitoring Data
 Bioremediation Pilot Study
 Hawthorne Army Depot, Hawthorne, NV

Days after Windrow Construction	°C	°C	°C	°C
	3.75 feet	2.92 feet	2.08 feet	1.25 feet
1				
2	36.5	45	49	51.5
3	44	51	59.5	67
4	52	48.5	56.5	70
5	44.5	52	63	66
6	52	61	67.5	62
7	57	57.5	59.5	65
8	56.5	58	57	58.5
9	55	58.5	59.5	61
10	55	57.5	61.5	64.5
11	58	58	57	58.5
12	51		65	69.5
13	51		64.5	68.5
14	54	60	66	70
15	56.5	58.5	62	65.5
16	53.5	58	61	60.5
17	53	56.5	60	66
18	56	60	64.5	67
19	60.5	62.5	66.5	69
20	60	61.5	65	69
21	58.5	61	64.5	68
22	57	59	62	65
23	56	58.5	61.5	61
24	56	57.5	61	62
25	56.5	57	60	59
30	54.5	55.5	57	63.5



Windrow 21
 Temperature Monitoring Data
 Bioremediation Pilot Study
 Hawthorne Army Depot, Hawthorne, NV

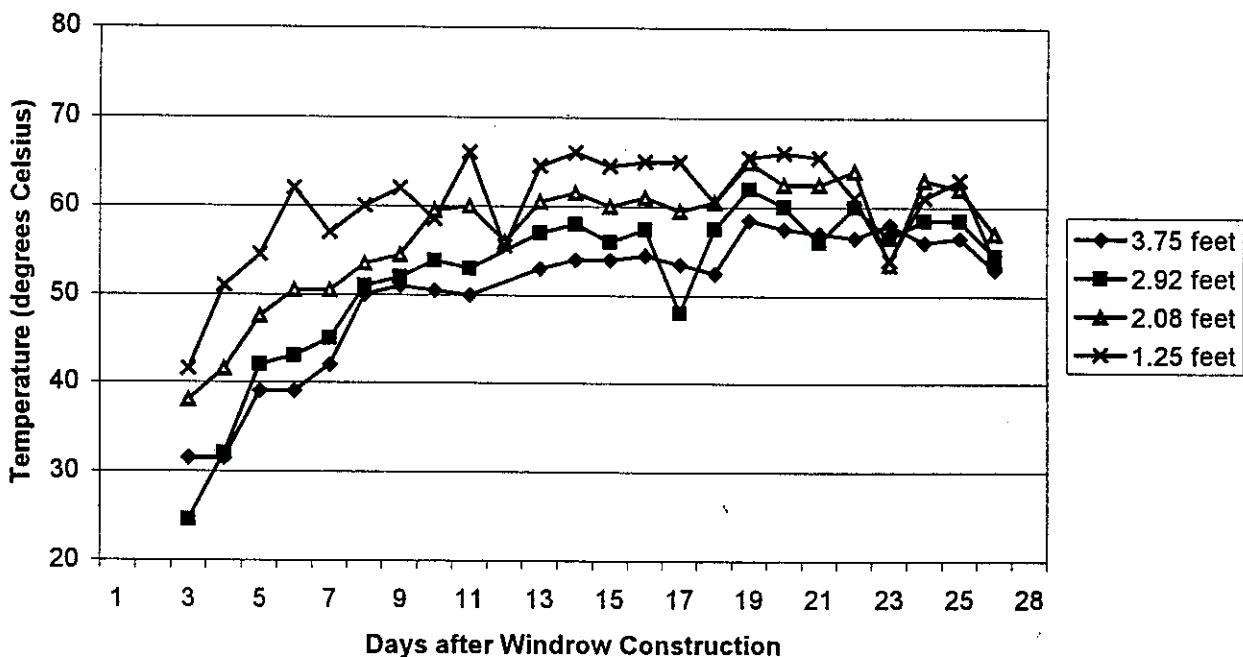
Days after Windrow Construction	°C	°C	°C	°C
	3.75 feet	2.92 feet	2.08 feet	1.25 feet
1				
2	34	37	40.5	
3	37	41	47.5	
4	41.5	47	57.5	66.5
5	40.5	42.5	47.5	48.5
6	41	43.5	46.5	50.5
7	50.5	56.5	61	66.5
8	49	53	56.5	62
9	44	50	57.5	62
10	48.5	52	55	56.5
11	55.5	56	57	57.5
12	43	50	58.8	64.5
13	50	55	62.5	66.5
14	47	51.5	56.5	63.5
15	53.5	58.5	63	67.5
16	50.5	55.5	60.5	59
17	52	55	62	65.5
18	50.5	54.5	58	61
19	58.5	59.5	61	64
20	53	55.5	59.5	62.5
21	55.5	57.5	61.5	63.5
22	54	55.5	58	59.5
23	53.5	53.5	60	59.5
24	50.5	52	54.5	56.5
25	53.5	55	56	54.5
30	50.5	49	50.5	54



Windrow 22
 Temperature Monitoring Data
 Bioremediation Pilot Study
 Hawthorne Army Depot, Hawthorne, NV

Days after Windrow Construction	°C	°C	°C	°C
	3.75 feet	2.92 feet	2.08 feet	1.25 feet
1				
2				
3	31.5	24.5	38	41.5
4	31.5	32	41.5	51
5	39	42	47.5	54.5
6	39	43	50.5	62
7	42	45	50.5	57
8	50	51	53.5	60
9	51	52	54.5	62
10	50.5	53.8	59.5	58.5
11	50	53	60	66
12			56	55.5
13	53	57	60.5	64.5
14	54	58	61.5	66
15	54	56	60	64.5
16	54.5	57.4	61	65
17	53.5	48	59.5	65
18	52.5	57.5	60.5	60.5
19	58.5	62	65	65.5
20	57.5	60	62.5	66
21	57	56	62.5	65.5
22	56.5	60	64	61
23	58	56.5	53.5	54
24	56	58.5	63	61
25	56.5	58.5	62	63
26	53	54.5	57	54
28				

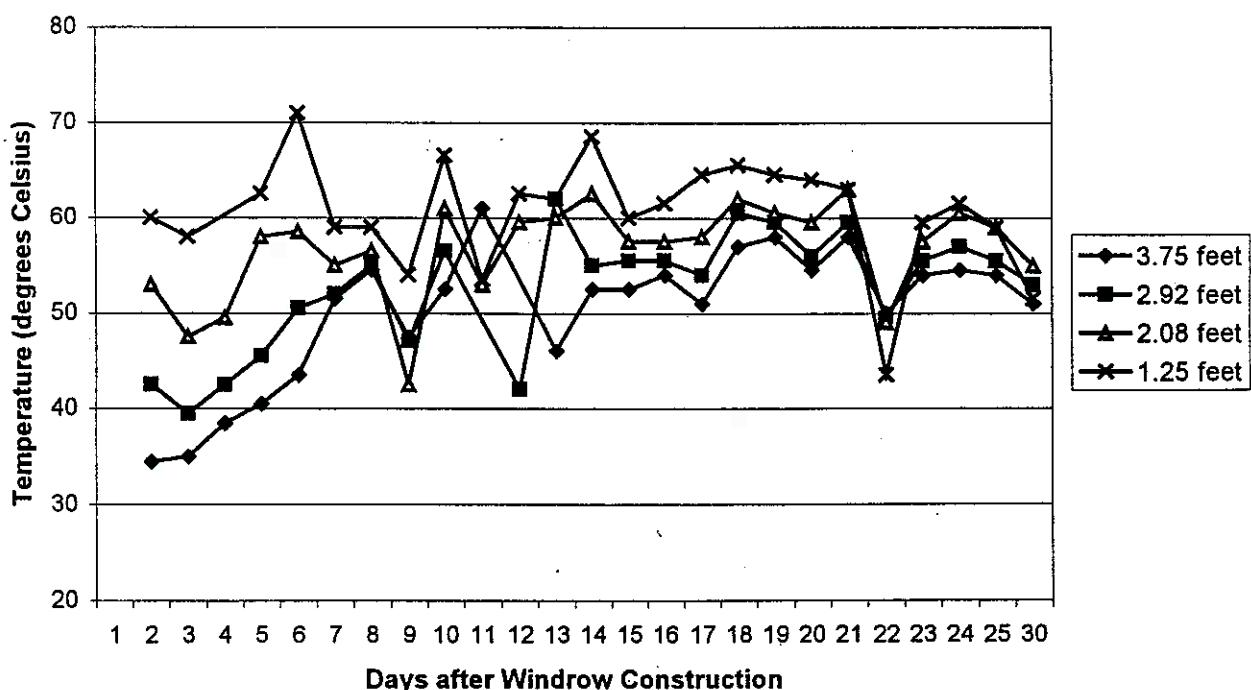
Windrow 22 - Temperatures



Windrow 23
 Temperature Monitoring Data
 Bioremediation Pilot Study
 Hawthorne Army Depot, Hawthorne, NV

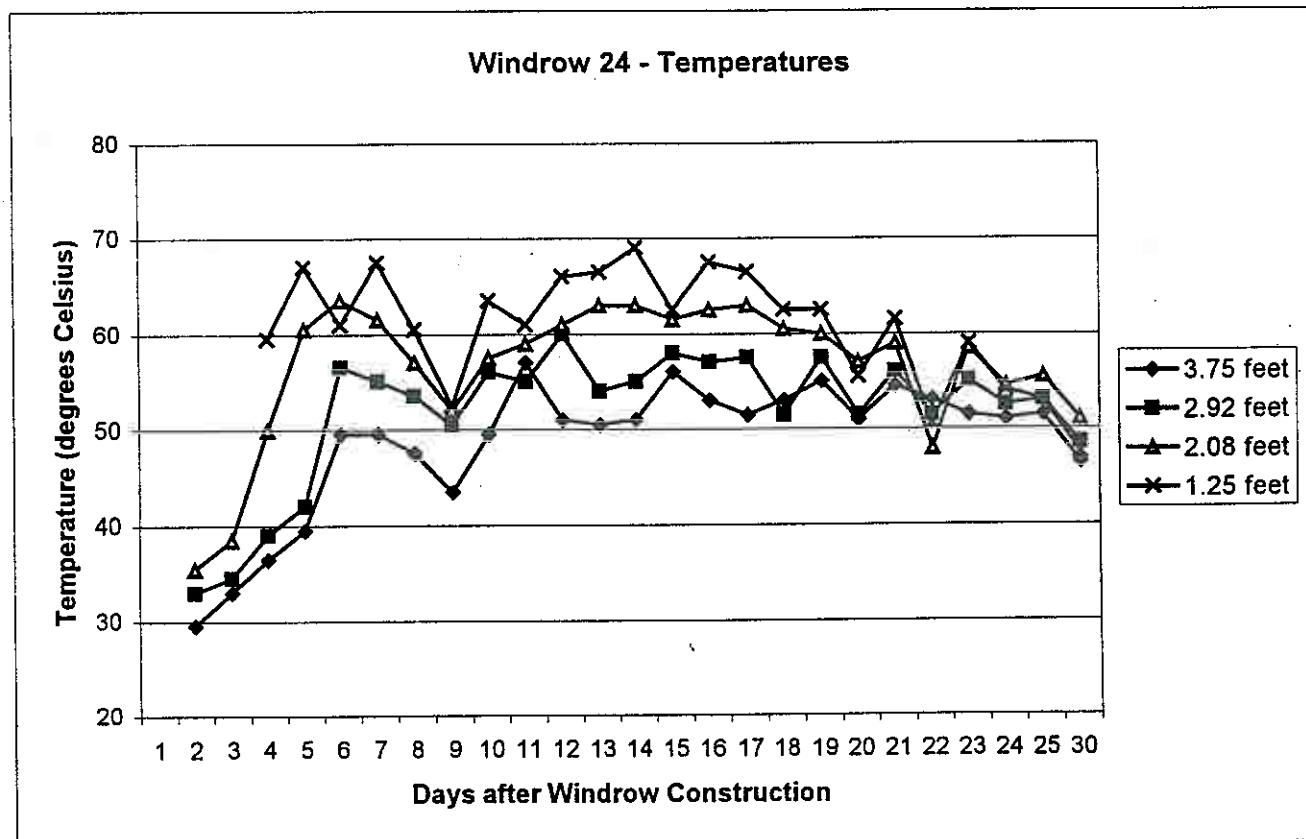
Days after Windrow Construction	°C	°C	°C	°C
	3.75 feet	2.92 feet	2.08 feet	1.25 feet
1				
2	34.5	42.5	53	60
3	35	39.5	47.5	58
4	38.5	42.5	49.5	
5	40.5	45.5	58	62.5
6	43.5	50.5	58.5	71
7	51.5	52	55	59
8	54.5	55	56.5	59
9	47.5	47	42.5	54
10	52.5	56.5	61	66.5
11	61		53	53.5
12		42	59.5	62.5
13	46	62	60	62
14	52.5	55	62.5	68.5
15	52.5	55.5	57.5	60
16	54	55.5	57.5	61.5
17	51	54	58	64.5
18	57	60.5	62	65.5
19	58	59.5	60.5	64.5
20	54.5	56	59.5	64
21	58	59.5	63	63
22	50	49.5	49	43.5
23	54	55.5	57.5	59.5
24	54.5	57	60.5	61.5
25	54	55.5	59	59
30	51	53	55	51.5

Windrow 23 - Temperatures



Windrow 24
 Temperature Monitoring Data
 Bioremediation Pilot Study
 Hawthorne Army Depot, Hawthorne, NV

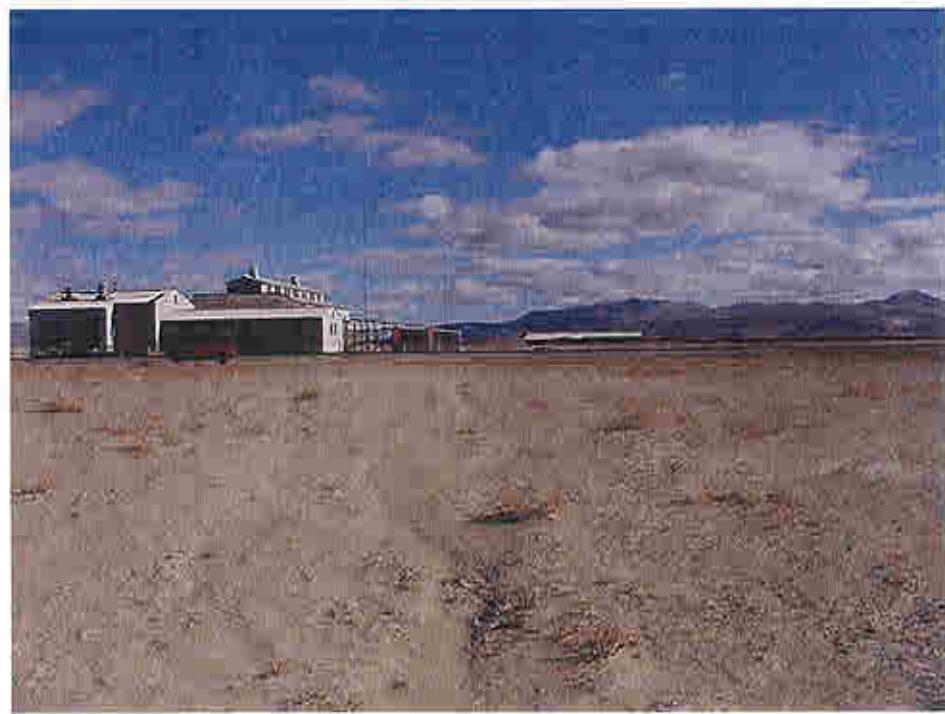
Days after Windrow Construction	°C	°C	°C	°C
	3.75 feet	2.92 feet	2.08 feet	1.25 feet
1				
2	29.5	33	35.5	
3	33	34.5	38.5	
4	36.5	39	50	59.5
5	39.5	42	60.5	67
6	49.5	56.5	63.5	61
7	49.5	55	61.5	67.5
8	47.5	53.5	57	60.5
9	43.5	50.5	52	52.5
10	49.5	56	57.5	63.5
11	57	55	59	61
12	51	60	61	66
13	50.5	54	63	66.5
14	51	55	63	69
15	56	58	61.5	62.5
16	53	57	62.5	67.5
17	51.5	57.5	63	66.5
18	53	51.5	60.5	62.5
19	55	57.5	60	62.5
20	51	51.5	57	55.5
21	54.5	56	59	61.5
22	53	51.5	48	50.5
23	51.5	55	58.5	59
24	51	52.5	54.5	54
25	51.5	53	55.5	53
30	46.5	48.5	51	47.5



Appendix E



SWMU I-15 – December 1997



SWMU I-15 – January 2000